Current Clinical Strategies

Psychiatry

1997 Edition

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Dedication

This book is dedicated to our children.

Preface

Current Clinical Strategies, Psychiatry covers topics in psychiatry useful to medical students, residents and other health professionals. This manual provides a quick and convenient guide to the diagnosis and management of psychiatric disorders.

This manual is structured to allow the clinician to individualize patient care by selecting a diagnosis based upon clinical indications, and then to choose the clinically indicated treatment plan from various alternatives.

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Table of Contents

Assessment and Evaluation

Clinical Evaluation of the Psychiatric Patient

I. Psychiatric History

- **A. Identifying Information:** Age, sex, marital status, race, referral source.
- **B. Chief Complaint (CC):** Reason for consultation - subjective or objective; often a direct quote from the patient.
- **C. History of Present Illness (HPI)**
  1. **Current Symptoms:** Date of onset, duration and course
  2. Previous psychiatric symptoms and treatment
  3. **Recent Psychosocial Stressors:** Stressful life events which may have contributed to the patient's current presentation
  4. Reason the patient is presenting now
  5. The purpose of this section is to provide evidence that supports or rules out certain diagnoses. Ascertaining the absence of pertinent symptoms is also important
  6. Historical evidence in this section should be relevant to the current presentation
- **D. Past Psychiatric History**
  1. Previous and current psychiatric diagnoses
  2. History of psychiatric treatment, including outpatient and inpatient treatment
  3. History of psychotropic medication use
  4. History of suicide attempts
- **E. Past Medical History**
  1. Current and/or previous medical problems
  2. Type of treatment, including prescription, over the counter medications, home or folk remedies
- **F. Family History**: Relatives with history of psychiatric disorders, suicide or suicide attempts, alcohol or substance abuse
- **G. Social History**
  1. Source of income
  2. Level of education, relationship history including marriages and sexual orientation, number of children; individuals that currently live with patient
  3. Support network
  4. Current alcohol or illicit drug usage
  5. Occupational history
- **H. Developmental History**: Family structure during childhood, relation-

ships with parental figures and siblings; developmental milestones; peer relationships; school performance

II. Mental Status Exam

The mental status exam is an assessment of the patient at a particular moment in time. Historical information should not be included in this section.

A. General Appearance and Behavior

1. Grooming, level of hygiene, characteristics of clothing
2. Unusual physical characteristics or movements
3. Attitude: Ability to interact with the interviewer
4. Psychomotor activity; agitation or retardation
5. Degree of eye contact

B. Affect

1. **Definition:** External range of expression observed by interviewer, most often described in terms of quality, range, and appropriateness
2. **Examples**
   - **a.** Flat: Absence of all or most affect
   - **b.** Blunted or restricted: moderately reduced range of affect
   - **c.** Labile: intense changes in affect
   - **d.** Full or wide range of affect: generally appropriate

C. Mood: Internal emotional tone of the patient as observed by the interviewer (i.e., dysphoric, euphoric, angry, euthymic, anxious.)

D. Thought Processes

1. Use of Language: Quality and quantity of speech
2. Include comments regarding rate, tone, associations and fluency of speech
3. **Common Signs of Thought Disorders**
   - **a. Pressured Speech:** Rapid speech, typical of manic patients
   - **b. Poverty of Speech:** Minimal responses such as answering just "yes or no"
   - **c. Blocking:** Sudden cessation of speech, often in the middle of a statement
   - **d. Flight of Ideas:** Accelerated thoughts that jump from idea to idea - typical in mania
   - **e. Loosening of Associations:** Illogical shifting between unrelated topics
   - **f. Tangentiality:** Thought which wanders from the original point
   - **g. Circumstantiality:** Unnecessary digression which eventually reaches the point
   - **h. Echolalia:** Echoing of words and phrases
   - **i. Neologisms:** New words invented by the patient
   - **j. Clanging:** Speech based on sound such as rhyming and punning rather than logical connections
   - **k. Perseveration:** Repetition of phrases or words in the flow of

speech

l. **Ideas of Reference:** Interpreting unrelated events as having direct reference to the patient such as the television is talking directly to them

E. Thought Content

1. **Definition:** Hallucinations, delusions and other perceptual disturbances
2. **Common Thought Content Disorders**
   a. **Hallucinations:** False sensory perceptions; may be auditory, visual, tactile, gustatory or olfactory in nature
   b. **Delusions:** Fixed, false beliefs, firmly held in spite of contradictory evidence
      i. **Persecutory Delusions:** False belief that others are trying to cause harm, or are spying with intent to cause harm
      ii. **Erotomanic Delusions:** False belief that a person, usually of higher status, is in love with the patient
      iii. **Grandiose Delusions:** False belief of an inflated sense of self-worth, power, knowledge, or wealth
      iv. **Somatic Delusions:** False belief that the patient has a physical disorder or defect
   c. **Illusions:** Misinterpretations of reality
   d. **Derealization:** Feelings of unrealness involving the outer environment
   e. **Depersonalization:** Feelings of unrealness, such as if one is "outside" of the body and observing his own activities
   f. **Suicidal and Homicidal Ideation:** When suicidal and homicidal ideation is present, it requires further elaboration with comments about intent and planning

F. Cognitive Evaluation

1. Level of consciousness
2. **Orientation:** Person, place and date
3. **Attention and Concentration:** Repeat 5 digits forwards and backwards or spell a five letter word ("world") forwards and backwards
4. **Short-Term Memory:** Ability to recall 3 objects after 5 minutes
5. **Fund of Knowledge:** Ability to name past five presidents, five large cities, or historical dates
6. **Calculations:** Subtraction of serial 7's, simple math problems
7. **Abstraction:** Proverb interpretation and similarities

G. Insight: Does the patient display an understanding of his current problems, and does the patient understand the implication of these problems?

H. Judgment

1. Ability to make sound decisions regarding everyday activities

2. Best evaluated by assessing a patient's history of decision making, rather than evaluating by asking hypothetical questions.

III. General Medical Screening of the Psychiatric Patient: A thorough physical and neurological examination, including basic screening laboratory studies to rule out physical conditions is a vital aspect of psychiatric assessment.

A. Laboratory Evaluation of the Psychiatric Patient

CBC with differential
Blood chemistry (SMAC)
Thyroid function panel
Screening test for syphilis (VDRL) or RPR
Urinalysis with drug screen
Blood alcohol level
Serum level of medications
HIV test in high risk patients

B. A more extensive workup and laboratory studies may be indicated after history and examination are obtained.

IV. DSM-IV Multiaxial Assessment Diagnosis

Axis I: Clinical Disorders
Other conditions that may be a focus of clinical attention
Axis II: Personality Disorders
Mental Retardation
Axis III: General Medical Conditions
Axis IV: Psychosocial and Environmental Problems
Axis V: Global Assessment of Functioning

V. Treatment Plan: This section should discuss pharmacologic treatment and other psychiatric therapy including hospitalization if warranted.

Psychological Testing

Psychological testing often provides additional information that complements the psychiatric history and mental status exam.

I. Psychological tests characterize psychological symptoms, as well as describe personality and motivations.

A. Rorschach Test: Ink blots serve as stimuli for free associations; particularly helpful in psychodynamic formulation and assessment of defense mechanisms and ego boundaries.

B. Thematic Apperception Test (TAT): The patient is asked to consider pictures of people in a variety of situations, and the patient is asked to

make up a story for each card. This test provides information about needs, conflicts, defenses, fantasies, and interpersonal relationships.

C. **Sentence Completion Test (SCT):** Patients are asked to finish incomplete sentences, thereby revealing conscious associations. Provides insight into defenses, fears and preoccupations of the patient.

D. **Minnesota Multiphasic Personality Inventory(MMPI):** A battery of questions assessing personality characteristics. Results are given in 10 scales.

E. **Draw-a-Person Test (DAP):** The patient is asked to draw a picture of a person, and then to draw a picture of a person of the opposite sex of the first drawing. The drawings are believed to represent how the patient relates to his environment, and the test may also be used as a screening exam for brain damage.

II. Neuropsychological tests assess cognitive abilities and can assists in characterizing impaired brain function.

A. **Bender Gestalt Test:** A test of visual-motor and spatial abilities, useful for children and adults

B. **Halstead-Reitan Battery and Luria-Nebraska Inventory**

1. Standardized evaluation of brain functioning
2. Assesses expressive and receptive language, memory, intellectual reasoning and judgment, visual-motor function, sensory-perceptual function and motor function.

C. **Wechsler Adult Intelligence Scale (WAIS):** Intelligence test that measures verbal IQ, performance IQ, and full-scale IQ

D. **Wisconsin Card Sort:** A test of frontal lobe function

Psychotic Disorders

Schizophrenia

Schizophrenia is a disorder characterized by apathy, avolition, and affective blunting. These patients have alterations in thoughts, perceptions, mood, and behavior. Many schizophrenics display delusions, hallucinations and misinterpretations of reality.

I. DSM-IV Diagnostic Criteria for Schizophrenia

- **A.** Two or more of the following symptoms present for one month
  - **1.** Delusions
  - **2.** Hallucinations
  - **3.** Disorganized speech
  - **4.** Grossly disorganized or catatonic behavior
  - **5.** Negative symptoms, i.e., affective flattening, alogia, avolition
- **B.** Decline in social and/or occupational functioning since the onset of illness
- **C.** Continuous signs of illness for at least six months with at least one month of active symptoms
- **D.** Schizoaffective disorder and mood disorder with psychotic features have been ruled out
- **E.** The disturbance is not due to substance abuse or medical condition
- **F.** If history of autistic disorder or pervasive developmental disorder is present, schizophrenia may be diagnosed only if prominent delusions or hallucinations have been present for one month

II. Clinical Features of Schizophrenia

- **A.** No sign or symptom is pathognomonic of schizophrenia.
- **B.** Prior history of schizotypal or schizoid personality traits or disorder are often present.
- **C.** Depressive symptoms may be present, but duration of these symptoms has been brief compared to duration of the psychotic symptoms.
- **D.** Many symptoms of schizophrenia are categorized as either positive or negative.
  - **1.** Positive Symptoms:
    - **a.** Hallucinations are most commonly auditory or visual, but can occur in any sensory modality.
    - **b.** Delusions
    - **c.** Disorganized behavior

d. Thought disorder characterized by loose associations, tangentiality, incoherent thoughts, neologisms, thought blocking, thought insertion, thought broadcasting, and ideas of reference.

2. Negative Symptoms:

a. Poverty of speech or poverty of thought content

b. Anhedonia

c. Flat affect

d. Loss of motivation (avolition)

e. Attentional deficits

E. The presence of tactile, olfactory or gustatory hallucinations may indicate an organic etiology such as complex partial seizures.

F. Sensorium and memory are intact unless the patient is too psychotic to engage in testing.

G. Insight and judgment frequently impaired.

III. Epidemiology of Schizophrenia

A. Lifetime prevalence of schizophrenia is one percent.

B. Onset of psychosis usually occurs in late teens or early twenties.

C. Males and females are equally affected, but mean age of onset is approximately six years later in females, and females frequently have a milder course of illness.

D. The suicide rate is ten times that of normals, and the rate is close to the rate that occurs in depressive illnesses.

E. More than 75% of patients are smokers, and an increased incidence of substance abuse has been found (especially alcohol, cocaine, and marijuana.)

F. Most do not return to baseline functioning, and most patients follow a chronic downward course, but some have a gradual improvement with a decrease in positive symptoms and increased functioning. Very few have a complete recovery.

IV. Classification of Schizophrenia

A. Paranoid Type Schizophrenia

1. Characterized by a preoccupation with one or more delusions or frequent auditory hallucinations.

2. No prominent disorganization of speech, disorganized or catatonic behavior, or flat or inappropriate affect.

B. Disorganized Type Schizophrenia: Characterized by prominent disorganized speech, disorganized behavior, and flat or inappropriate affect.

C. Catatonic Type Schizophrenia: Characterized by at Least Two of the Following:

1. Motoric immobility

2. Excessive motor activity

3. Extreme negativism or mutism
4. Peculiar voluntary movements such as bizarre posturing
5. Echolalia or echopraxia

D. Undifferentiated Type Schizophrenia: Meets criteria for schizophrenia, but can not be characterized as paranoid, disorganized or catatonic type.

E. Residual Type Schizophrenia: Characterized by absence of prominent delusions, disorganized speech and grossly disorganized or catatonic behavior and continued negative symptoms or two or more attenuated positive symptoms.

V. Differential Diagnosis of Schizophrenia

A. Psychotic Disorder Due to a General Medical Condition, Delirium, or Dementia.

B. Substance Induced Psychotic Disorder
Amphetamines and cocaine frequently cause hallucinations, paranoia, or delusions. Phencyclidine (PCP) may lead to both positive and negative symptoms.

C. Schizoaffective Disorder
Moods symptoms are present for a significant portion of the illness. In schizophrenia duration of mood symptoms is brief compared to the entire duration of the illness.

D. Mood Disorder with Psychotic Features
1. Psychotic symptoms occur only during major mood disturbance (mania or major depression).
2. Disturbances of mood frequent in all phases of schizophrenia.

E. Delusional Disorder: Non-bizarre delusions in absence of other psychotic symptoms.

F. Schizotypal, Paranoid, Schizoid or Borderline Personality Disorders
1. Psychotic symptoms are generally mild and brief in duration.
2. Patterns of behavior are life-long with no identifiable time of onset.

G. Brief Psychotic Disorder: Duration between one day to one month.

H. Schizophreniform Disorder: Criteria for schizophrenia are met but duration of illness is less than six months.

VI. Treatment of Schizophrenia

A. Pharmacotherapy: Antipsychotic medications reduce core symptoms and are the cornerstone of treatment. No treatment is effective in eliminating all symptoms.

B. Psychosocial treatments in conjunction with medications are indicated. Day treatment programs, with emphasis on social skills training, significantly decrease relapse.

C. Family therapy and individual supportive psychotherapy are also instrumental in relapse prevention.

D. Electroconvulsive therapy is rarely used in the treatment of schizophrenia, but may be useful when catatonia or prominent affective symptoms exist.

E. Indications for Hospitalization:

1. Psychotic symptoms prevent the patient from caring for his basic needs.

2. Suicidal ideation, often secondary to psychosis, often requires hospitalization.

3. Patients who are a danger to themselves or others, require hospitalization.

Antipsychotic Drug Therapy

I. Indications for Antipsychotic Drugs

A. Antipsychotics (also known as neuroleptics) are indicated for schizophrenia and may be used for other disorders with psychotic features such as depression.

B. They are the drugs of choice for brief psychotic disorder, schizophreniform disorder and schizophrenia. They also play a prominent role in the treatment of schizoaffective disorder.

C. They may be necessary for brief to moderate courses of treatment in patients with mood disorders with psychotic features. They often improve functioning in patients with dementia or delirium with psychotic features in low doses.

D. Neuroleptics are frequently used in the treatment of substance induced psychotic disorders; however, efficacy in these illnesses is questionable. At times low dose neuroleptics may assist with brief psychotic features of severe personality disorders; however, they should be used with caution and for a brief duration of time.

II. Selection of an Antipsychotic Agent

A. All neuroleptics are equally effective in the treatment of psychosis, with the exception of clozapine being more effective for treatment refractory schizophrenia.

B. In general, the choice of neuroleptic should be made on past history of response to a neuroleptic, family history of response and side effects.

C. At least two weeks of treatment are required before significant antipsychotic effect is achieved.

D. The use of more than one antipsychotic agent at a time, has not been shown to be efficacious.

III. Dosing of Antipsychotic Agents

A. Initial treatment should begin with divided doses, such as two to four times per day.

B. Once steady state levels have been achieved (after about 5 days), the long half-life of neuroleptics allows for once a day dosing, with the exception of low potency agents such as chlorpromazine which should always be given in divided doses to reduce side effects.

C. The dose of neuroleptic in acute psychosis, such as in schizophrenia, should be approximately 500 to 600 mg of chlorpromazine equivalents. Higher doses are generally not needed for most patients and usually result in more side effects and noncompliance.

D. Rapid tranquilization with large amounts of neuroleptic in the first few days of treatment has not been shown to be effective and is contraindi-

cated. Similarly, the use of as needed neuroleptics is generally contraindicated.

E. To treat agitated psychotic patients, sedating agents such as benzodiazepines may be combined with an adequate dose of neuroleptic in the initial phase of treatment.

F. For maintenance dosing in stable psychotic patients, approximately 300 to 400 mg of chlorpromazine equivalents is indicated.

Classification of Antipsychotic Drugs

Name	Trade name	Class	Average Dose (mg)	Chlorpro-mazine Equiva-lents (mg)	Dopaminergic Effect (D2)	Muscarinic Effect	Alpha-1 Adrenergic Blocking Ef-fect	Antihist-amine Effect	Seroto nergic Effect
Chlorpromazine	Thorazine	Phenothi-azine/Aliphatic	600-800	100	++++	+ + + +	++++	++++	++++
Fluphenazine	Prolixin	Phenothia-zine/Piperazine	10-20	2	++++	+	+	+ +	++
Perphenazine	Trilafon	Phenothia-zine/Piperazine	60-80	10	++++	+	++	+++	++++
Trifluoperazine	Stelazine	Phenothia-zine/Piperazine	30-40	5	++++	+	+ +	+ +	+++
Thioridazine	Mellaril	Phenothia-zine/Piperidine	600-800	100	++++	+ + + +	++++	++++	++++
Mesoridazine	Serentil	Phenothia-zine/Piperidine	300-400	50	++++	+ + +	++++	++++	++++
Haloperidol	Haldol	Butyrophenone	10-20	2	++++	+	+	+	++
Clozapine	Clozaril	Dibenzodiaz-epine/Atypical Agents	300-600	60	++	+ + + +	++++	++++	++++
Loxapine	Loxitane	Dibenzodiaz-epine	75-100	12.5	+++	+ +	+++	++++	++++
Pimozide	Orap	Diphenylbutyl-piperidine	2-15	1	++++	+	+	+	
Molindone	Moban	Dihydroindol-one	50-100	10	+++	+ +	+	+	+
Thiothixene	Navane	Thioxanthene	30-40	5	++++	+	++	+++	+
Risperidone	Risperdal	Benzisoxazole	2-10	1-2	++	+	+++	++	++

IV. Route of Administration

A. Oral administration is available for all antipsychotics and some are available in liquid form to increase compliance in patients who "cheek" their medications and later spit them out.

B. Long acting depot (intramuscular) neuroleptics such as Haldol and Prolixin decanoate are useful for non-compliant patients.

C. Haldol decanoate should be started at twenty times the daily oral dose in the first month of treatment, divided into three or four injections given over a seven day time period. For example a patient receiving 20 mg of oral Haldol per day would be given 400 mg of decanoate. The dose may be reduced by 25% in each of the next two months such that the maintenance dose would be 200 mg every 30 days.

D. Prolixin decanoate should be started at 25 mg every two weeks with the dose being adjusted up to 50 mg each two weeks if necessary.

E. Once a patient has received one to two injections, the oral haloperidol or Prolixin may be discontinued.

V. Antipsychotic Side Effects

A. Low potency agents such as chlorpromazine produce a higher incidence of anticholinergic side effects, sedation and orthostatic hypotension compared to high potency agents such as haloperidol.

B. High potency agents such as haloperidol and Prolixin produce a high incidence of extrapyramidal symptoms such as acute dystonic reactions, Parkinsonian syndrome, and akathisia.

C. Moderate potency agents include trifluoperazine and thiothixene, and they have side effect profiles in between the low potency and high potency agents.

D. Anticholinergic Side Effects

1. Neuroleptics, especially low potency agents such as chlorpromazine and thioridazine produce anticholinergic side effects such as dry mouth, constipation, blurry vision, and urinary retention.

2. In severe cases, anticholinergic blockade can produce a central anticholinergic syndrome characterized by confusion or delirium, dry flushed skin, dilated pupils and elevated heart rate.

E. Extrapyramidal Side Effects

1. Neuroleptics, especially the high potency agents such as haloperidol, induce a variety of involuntary movements known as extrapyramidal side effects. These consist of involuntary movements that occur due to blockade of dopamine receptors in the nigrostriatal pathway of the basal ganglia.

2. Acute Dystonia

a. Acute dystonic reactions are characteristically sustained contraction of the muscles of neck (torticollis), eyes (oculogyric crisis),

tongue, jaw and other muscle groups typically occurring within 10-14 days after initiation of the neuroleptic.

b. Laryngeal spasms can cause airway obstruction, requiring urgent IV administration of diphenhydramine (or other anticholinergic). Dystonias are often very painful and frightening to patients.

c. Dystonic reactions are most frequently induced by high potency neuroleptics such as haloperidol and fluphenazine (Prolixin), and they can occur in young, otherwise healthy persons (particularly younger men) even after a single dose.

d. Dystonias should be treated with 1-2 mg of benztropine (Cogentin) IM. Subsequently, the dose of neuroleptic may need decreasing. The patient may require long term anticholinergic medication to control dystonia.

e. Dystonias will also often improve with a change to a lower potency agent.

3. Drug-Induced Parkinsonian Syndrome

a. The Parkinsonian syndrome secondary to neuroleptics is similar in presentation to idiopathic Parkinson's disease.

b. Patients present with cogwheel rigidity, mask-like facies, bradykinesia, and shuffling gait.

c. Drug-induced Parkinsonism is treated by adding an anticholinergic agent such as benztropine (Cogentin) or trihexyphenidyl (Artane).

d. The dopamine releasing agent, amantadine, is also effective.

e. Parkinsonian symptoms may also improve with a lower dose of neuroleptic or after switching to a low potency agent such as thioridazine.

4. Akathisia

a. Akathisia is characterized by strong feelings of inner restlessness which are manifested outwardly by difficulty remaining still and excessive walking or pacing.

b. Akathisia may respond to the addition of a anticholinergic agent, but more often, a beta blocker such as propranolol is required in the dose range of 10-40 mg tid or qid.

c. Benzodiazepines such as diazepam may be used for refractory cases.

F. Tardive Dyskinesia

1. Tardive dyskinesia is an involuntary movement disorder involving the tongue, mouth, fingers, toes, and other body parts.

2. Tardive dyskinesias are characterized by chewing movements, smacking and licking of the lips, sucking movements, tongue protrusion, blinking, grimaces and spastic facial distortions.

3. All neuroleptics with the exception of clozapine and possibly risperidone produce tardive dyskinesia.

4. Antiparkinsonian drugs are of no benefit; and may exacerbate the symptoms of tardive dyskinesia.
5. When tardive dyskinesia symptoms are observed, it is advisable to try to discontinue the offending drug. At the present time there is no accepted approach to the treatment of tardive dyskinesia. Patients who require continued therapy should be switched to clozapine.
6. The risk of tardive dyskinesia increases with the duration of neuroleptic exposure, and there is an incidence of 3% per year.
7. Most patients have relatively mild cases, but tardive dyskinesia can be debilitating in severe cases. Tardive dyskinesias do not always improve with discontinuation or lowering of the dose of neuroleptic.
8. There is no treatment for tardive dyskinesia.

G. Neuroleptic Malignant Syndrome(NMS)

1. All neuroleptics, with the probable exception of clozapine, may produce neuroleptic malignant syndrome.
2. This is a rare idiosyncratic reaction which can be fatal.
3. NMS is characterized by sever muscle rigidity, fever, altered mental status, and autonomic instability.
4. Lab tests often reveal an elevated WBC, CPK, and liver transaminases.
5. Treatment involves discontinuing the neuroleptic immediately along with supportive treatment and medications such as amantadine, bromocriptine, and dantrolene.
6. Patients may require treatment in an intensive care unit.

H. Sedation

1. Neuroleptic sedation is related to blockade of H-1 histamine receptors.
2. It is more common with low potency agents such as chlorpromazine, compared to high potency agents such as haloperidol.
3. Bedtime administration will often reduce daytime sedation.

I. Orthostatic Hypotension

1. Alpha-1 adrenergic blockade results in orthostatic hypotension which can be serious and often leads to falls and injury.
2. Orthostatic hypotension occurs especially with low potency agents such as chlorpromazine, thioridazine or clozapine.
3. Patients should be advised to get up slowly from recumbent positions.

J. Cardiac Toxicity: Cardiac conduction delays can occur with thioridazine, mesoridazine or pimozide.

K. Sexual Side Effects

1. Antipsychotics may produce a wide range of sexual dysfunction.
2. Dopamine receptor (D2) blockade occasionally leads to elevation of prolactin with subsequent gynecomastia, galactorrhea, and menstrual dysfunction.

3. Retrograde ejaculation, erectile dysfunction, and inhibition of orgasm are also common side effects.

L. Retinitis Pigmentosa: Irreversible blindness can rarely occur with a dose of thioridazine greater than 800 mg per day.

M. Photosensitivity

1. Antipsychotic agents often cause photosensitivity and a predisposition to sunburn.
2. Photo sensitivity is especially common with low potency agents such as chlorpromazine. Patients should be advised to use sunscreen.

N. Cholestatic Jaundice: A rare hypersensitivity reaction that is most common with chlorpromazine. Cholestatic jaundice is usually reversible after discontinuation of the medication. Most cases develop during the third and fourth weeks of treatment. Treatment should include switching to another class of antipsychotic drug after a drug-free interval.

VI. Atypical Neuroleptics

A. Clozapine is a dibenzodiazepine derivative and is considered an atypical antipsychotic agent.

1. Clozapine is used for the treatment of patients who have not responded to, or who can not tolerate other neuroleptics.
2. Clozapine has a 1% incidence of agranulocytosis, which can be fatal, and therefore requires weekly monitoring of WBC for the duration of treatment. When white blood cell counts drop below 3 x 10^{12}/liter, clozapine must be discontinued.
3. Clozapine is unique in that it does not produce extrapyramidal symptoms or tardive dyskinesia.
4. Clozapine also can produce dose related seizures that are especially common at dosages above 600 mg per day.
5. Clozapine causes sedation, orthostatic hypotension, excess salivation (sialorrhea), weight gain, tachycardia, and rare cases of respiratory arrest in conjunction with benzodiazepines may also occur.
6. There is no significant elevation of prolactin or subsequent side effects.

B. Risperidone is the newest antipsychotic agent.

1. Risperidone maintains an atypical side effect profile with minimal extrapyramidal symptoms at lower doses (up to 4-6 mg) in most patients.
2. At doses between 6-16 mg per day, the incidence of EPS increases significantly.
3. The effective dosage range is 4-8 mg/day.
4. Fatigue and sedation are the most common side effects along with weight gain and orthostatic hypotension.

5. Risperidone can elevate prolactin leading to gynecomastia, galactorrhea and disruption of the menstrual cycle. Agranulocytosis has not been reported.

VII. Anticholinergic and Antiparkinsonian Agents

Anticholinergic and antiparkinsonian agents are commonly used to control the extrapyramidal side effects of antipsychotic agents, including acute dystonic reactions, neuroleptic induced Parkinsonism, akathisia.

A. Indications:

1. Anticholinergics are drugs of choice for acute dystonias and for drug induced Parkinsonism.

2. Intramuscular injections of anticholinergic agents are most effective for rapid relief.

3. Anticholinergic agents are less effective for drug induced akathisia, which often requires addition of a beta blocker.

4. Antiparkinsonian agents are usually initiated when a patient develops neuroleptic-related extrapyramidal side effects, but may be given prophylactically in high risk patients. The anticholinergic agent should be tapered and discontinued after one to six months if possible.

B. Classification of Anticholinergic/Antiparkinsonian Agents

Name	Class	Trade Name	Dose
Benztropine	Anticholinergic	Cogentin	1-2 mg bid-tid orally or 1-2 mg IM
Biperiden	Anticholinergic	Akineton	2 mg bid-tid orally or 2 mg IM
Trihexyphenidyl	Anticholinergic	Artane	2-5 mg bid-qid
Diphenhydramine	Antihistamine/ Anticholinergic	Benadryl	25-50 mg bid to qid or 25-50 mg IM
Amantadine	Dopamine/ Agonist	Symmetrel	100-150 mg bid

1. Side Effects of Anticholinergic Agents

a. The most common side effects result from peripheral anticholinergic blockade: Dry mouth, constipation, blurry vision, urinary hesitancy, decreased sweating, increased heart rate, and ejaculatory dysfunction.

b. A central anticholinergic syndrome occurs with high doses, or when the agent is combined with other anticholinergic medications. The syndrome is characterized by mental confusion, dry flushed skin, tachycardia, and pupillary dilation. In severe cases, delirium, hallucinations, arrhythmias, hypotension, seizures, and coma may develop.

c. Anticholinergic drugs are contraindicated in narrow angle glaucoma and should be used cautiously in prostatic hypertrophy or cardiovascular disease.

d. Amantadine does not have anticholinergic side effects; however, amantadine may cause nausea, insomnia, decreased concentration, dizziness, irritability, anxiety, ataxia. Amantadine is contraindicated in renal failure.

Schizoaffective Disorder

I. DSM-IV Diagnostic Criteria

A. An illness which meets the criteria for schizophrenia and concurrently meets the criteria for a major depressive episode, manic episode, or mixed episode.

B. Must also have delusions or hallucinations for two weeks without significant mood symptoms

C. Mood symptoms are present for a significant portion of the illness

D. General medical condition or substance use is not the cause of symptoms

II. Clinical Features of Schizoaffective Disorder

A. Patients have symptoms of schizophrenia, but also recurrent or chronic mood disturbances.

B. Psychotic symptoms and mood symptoms occur independently or together.

C. If manic or mixed symptoms occur, they must be present for one week and major depressive symptoms must last for two weeks.

III. Epidemiology of Schizoaffective Disorder

A. Lifetime prevalence is under one percent.

B. First degree biological relatives of schizoaffective disorder patients have an increased risk of schizophrenia as well as mood disorders.

IV. Classification of Schizoaffective Disorder

A. Bipolar Type: Diagnosed when a manic or mixed episode occurs. Major depression may also occur.

B. Depressive Type: Diagnosed if major depressive episodes occur.

V. Differential Diagnosis of Schizoaffective Disorder

A. Schizophrenia: In schizophrenia mood symptoms are relatively brief in relation to psychotic symptoms. Mood symptoms usually do not meet full criteria for major depressive or manic episodes.

B. Mood Disorder with Psychotic Features: In mood disorder with psychotic features, the psychotic features occur only in the presence of a major mood disturbance.

C. **Delusional Disorder:** Depressive symptoms can occur in delusional disorders, but psychotic symptoms of a delusional disorder are non-bizarre compared to schizoaffective disorder.
D. **Substance Induced Psychotic Disorder:** Psychotic and mood symptoms of Schizoaffective disorder can be mimicked by street drugs, medications or toxins.
E. **Psychotic disorder due to a general medical condition, delirium, or dementia:** Should be ruled out by medical history, physical exam and labs.

VI. Treatment of Schizoaffective Disorder

A. **Antipsychotic agents** should be used for psychosis. (See page 17)
B. Antidepressant medications are indicated during depressed phases of schizoaffective disorder.
C. For bipolar type, use mood stabilizers such as lithium, valproate or carbamazepine, alone or in combination with antipsychotics.
D. ECT may be necessary for severe depression or mania.
E. Hospitalization and supportive psychotherapy may be required.

Schizophreniform Disorder

Patients with schizophreniform disorder meet full criteria for schizophrenia, but the duration of illness is between one to six months.

I. DSM-IV Diagnostic Criteria for Schizophreniform Disorder

A. Must meet following criteria for schizophrenia:
1. Two or more symptoms for one month. Symptoms may include delusions, hallucinations disorganized speech, grossly disorganized or catatonic behavior, or negative symptoms.
2. Schizoaffective disorder and mood disorder with psychotic features have been ruled out.
3. Substance induced symptoms or symptoms from a general medical condition have been ruled out.
4. Symptomatology must last for at least one month, but less than six months.

II. Clinical Features of Schizoaffective Disorder

A. Symptomatology, including positive and negative psychotic features are the same as schizophrenia.
B. Social and occupational functioning may or may not be impaired.

III. Epidemiology of Schizoaffective Disorder

A. Lifetime prevalence is approximately 0.2%.
B. Prevalence is the same in males and females.
C. The average age of onset has not been determined.
D. Depressive symptoms are common and associated with an increased suicide risk.

IV. Classification of Schizophreniform

A. Schizophreniform Disorder with Good Prognostic Features
1. Onset of psychosis occurs within four weeks of behavioral change
2. Confusion often present at peak of psychosis
3. Good premorbid social and occupational functioning
4. Lack of blunted or flat affect
B. Schizophreniform Disorder Without Good Prognostic Features
Absence of above features

V. Differential Diagnosis of Schizoaffective Disorder

A. The differential diagnosis for schizoaffective disorder is same as for schizophrenia and includes psychotic disorder due to a general medical condition, delirium, or dementia.
B. Substance abuse, medication or toxic substances may cause the secondary symptoms of schizoaffective disorder.

VI. Treatment of Schizophreniform Disorder

A. Antipsychotic medication in conjunction with supportive psychotherapy is the primary treatment.
B. Hospitalization may be required if the patient is unable to care for himself or if suicidal or homicidal ideation is present.
C. Depressive symptoms may require antidepressants or mood stabilizers.

Brief Psychotic Disorder

Brief psychotic disorder is a disorder characterized by hallucinations, delusions, disorganized speech or behavior, but the duration of symptoms is between one day and one month, whereas the diagnosis of schizophrenia requires a six month duration of symptoms.

I. DSM- IV Diagnostic Criteria for Brief Psychotic Disorder

A. At least one of the following:
  1. Delusions
  2. Hallucinations
  3. Disorganized speech
  4. Grossly disorganized or catatonic behavior

B. Duration of symptoms is between one day and one month after which the patient returns to the previous level of functioning.

C. The disturbance is not due to a mood disorder with psychotic features, substance abuse, schizoaffective disorder, schizophrenia, or other medical condition.

II. Clinical Features of Brief Psychotic Disorder

A. Emotional turmoil and confusion are often present.

B. Mood and affect may be labile.

C. Onset is usually sudden.

D. Attentional deficits are common.

E. Psychotic symptoms are of brief duration (several days).

III. Epidemiology of Brief Psychotic Disorder

A. Lifetime prevalence is unknown, but the disorder is thought to be rare.

B. Sex ratio is unknown.

C. Younger individuals may have a higher rate of illness, with the average age of onset in the late twenties to early thirties.

D. Risk of suicide is increased in these patients, especially in young patients.

E. Patients with personality disorders have a higher risk for brief psychotic disorder.

F. A possible genetic relationship to mood disorders may exist.

IV. Classification of Brief Psychotic Disorder

A. Brief Psychotic Disorder with Marked Stressors: Specified if symptoms occur in relation to marked stressors (i.e., death of a loved one).

B. Brief Psychotic Disorder without Marked Stressors: Symptoms occur without identifiable stressors

C. Brief Psychotic Disorder with Postpartum Onset: Onset occurs within four weeks of giving birth.

V. Differential Diagnosis of Brief Psychotic Disorder

A. Substance induced psychotic disorder

1. Many agents such as amphetamine, cocaine and PCP produce symptoms indistinguishable from brief psychotic disorder.

2. Rule out with history of substance abuse and with a toxicology screen.

B. Psychotic Disorder Due to a General Medical Condition

1. Rule out with history, physical exam and labs. The following labs may be helpful: CBC to rule out an infection leading to delirium and psychosis.

2. Routine chemistry labs to rule out electrolyte imbalances or hepatic encephalopathy; RPR to rule out neurosyphilis; HIV to rule out psychosis due to encephalitis in at risk patients.

3. Consider a MRI or head CT scan to rule out a mass or neoplasm.

4. Consider an EEG to rule out temporal lobe epilepsy.

C. Schizophreniform Disorder or Schizophrenia: Schizophreniform disorder must last for over a month and schizophrenia must have a six month duration.

D. Mood Disorder with Psychotic Features: Brief psychotic disorder can not be diagnosed if full criteria for major depressive, manic or mixed episode is present

VI. Treatment of Brief Psychotic Disorder

A. Brief hospitalization may be necessary especially if suicidal or homicidal ideation is present.

B. A brief course of a neuroleptic such as haloperidol (Haldol) 5-10 mg per day is often indicated and adjunctive benzodiazepines may be useful. Short acting benzodiazepines such as lorazepam 1-2 mg every 4 to 6 hours as needed associated agitation and anxiety.

C. Supportive psychotherapy is indicated if precipitating stressors are present.

Delusional Disorder

Delusional disorder is characterized by the presence of irrational untrue beliefs held by the patient.

I. DSM-IV Diagnostic Criteria for Delusional Disorder

A. Non-bizarre delusions have lasted for at least one month

B. This disorder is characterized by the absence of hallucinations, disorganized speech, grossly disorganized or catatonic behavior or negative symptoms of schizophrenia (tactile or olfactory hallucinations may be present if related to the delusional theme).
C. Behavior and functioning are not significantly bizarre or impaired.
D. If mood episodes have occurred, the total duration of mood pathology is brief compared to the duration of the delusions.

II. Clinical Features of Delusional Disorder

A. The presence of a non-bizarre delusion is the cardinal feature of this disorder (i.e., the delusion must be plausible).
B. Patients generally appear normal except when discussing the specific delusion.
C. Hallucinations are not prominent unless delusional disorder is of the somatic type. Cognition and sensorium are intact.
D. There is generally no disturbance of thought processes such as loosening of associations or tangentiality.
E. The insight of patients into their illness is generally poor, and this disorder may cause significant impairment in social and occupational functioning.

III. Epidemiology of Delusional Disorder

A. Delusional disorder is uncommon, with an estimated prevalence of 0.03%.
B. Mean rage of onset is in the forties; however, age of onset is highly variable.
C. The incidence in males and females appears equal.

IV. Classification of Delusional Disorder

A. Persecutory Type: Involves delusions that the individual is being harassed.
B. Somatic Type: Involves delusions of a physical deficit or medical condition.
C. Erotomanic Type: Involves delusions that another person is in love with the patient.
D. Grandiose Type: Involves delusions of exaggerated power, wealth, knowledge, identity or relationship to famous person or religious figure.
E. Jealous Type: Involves delusions that an individual's partner is unfaithful.
F. Mixed Type: Involves delusions of at least two of above without a predominate theme.

V. Differential Diagnosis of Delusional Disorder

A. Schizophrenia/Schizophreniform Disorder: Delusional disorder is distinguished from these disorders by a lack of other positive or negative symptoms of psychosis.

B. Substance Induced Psychotic Disorder

1. Symptoms may be identical to delusional disorder if patient has ingested amphetamines or cocaine.
2. Should be excluded by history and toxicology.

C. Psychotic Disorder Due to a General Medical Condition

1. Simple delusions of a persecutory or somatic nature are often present in delirium or dementia.
2. Cognitive exam, history and physical exam can usually distinguish these conditions.

D. Mood Disorders With Psychotic Features: Although mood symptoms and delusions may be present in both disorders, patients with delusional disorder will not meet full criteria for a mood episode and the duration of mood symptoms will be brief compared to delusional symptoms.

VI. Treatment of Delusional Disorder

A. Delusional disorders are often refractory to antipsychotic medication, but a therapeutic trial is usually warranted.

B. Patients, especially those with persecutory type, may feel safer in a structured environment like a hospital; however, symptoms frequently return after discharge.

C. Various psychotherapies, including family or couples therapy, may offer some benefit.

Mood Disorders

I. Categorization of Mood Disorders

A. Mood Disorders are defined, for the most part, by the presence and/or absence of Mood Episodes. The Mood Episodes represent constellations of symptoms describing a predominant mood state. They are not diagnostic entities. The Mood Disorders are clinical diagnoses with distinct presentations and treatments.

B. The categories are classified as follows:

1. Types of Mood Episodes

a. Major Depressive Episode
b. Manic Episode
c. Mixed Episode
d. Hypomanic Episode

2. Types of Mood Disorders

a. Depressive Disorders
b. Bipolar Disorders
c. Other Mood Disorders

Mood Episodes
Major Depressive Episodes

Major depressive episodes are associated with persistent sadness often associated with somatic symptoms such as weight loss, difficulty sleeping and decreased energy.

I. DSM-IV Diagnostic Criteria

A. At least 5 of the following symptoms for at least 2 weeks duration

B. Must be a change from previous functioning.

C. At least one symptom is depressed mood or loss of interest/pleasure.

1. Pervasive depressed mood
2. Pervasive anhedonia
3. Significant change in weight
4. Sleep disturbance
5. Psychomotor agitation or retardation
6. Pervasive fatigue or loss of energy
7. Excessive guilt or feelings of worthlessness
8. Difficulty concentrating

9. Recurrent thoughts of death on thoughts of suicide -- with or without a plan.

D. Symptoms must cause significant social, occupational dysfunction or significant subjective distress.

E. Cannot be due to a medical condition, medication or drugs.

F. Symptoms cannot be due to bereavement.

II. Clinical Features of Depressive Episodes

A. Occasionally no subjective depressed mood is present, only anxiety and irritability are displayed.

B. Feelings of hopelessness and helplessness are common.

C. Decreased libido

D. Early morning awakening with difficulty or inability to fall back to sleep is the typical sleep disturbance.

E. Psychomotor agitation, when present, can be severe.

F. Patients may appear demented secondary to poor attention and concentration as well as indecisiveness.

G. Guilt may become excessive, to the point of appearing delusional.

H. Obsessive rumination about the past or specific problems is common.

I. Preoccupation with physical health may occur.

J. Frank delusions and hallucinations are possible, and they are frequently nihilistic in nature.

K. Family history of mood disorder or suicide/suicide attempts are common.

Manic Episodes

I. DSM-IV Diagnostic Criteria

A. At least one week of abnormally and persistently elevated, expansive or irritable mood (may be less than one week if hospitalization is required).

B. During the period of mood disturbance at least three of the following have persisted in a significant manner (four if mood is irritable):

1. Inflated self-esteem or grandiosity
2. Decreased need for sleep
3. The patient has been more talkative than usual or feels pressure to keep talking
4. Flight of ideas (jumping from topic-to-topic) or a subjective sense of racing thoughts
5. Distractibility
6. Increased goal-directed activity or psychomotor agitation

7. Excessive involvement in pleasurable activities with high potential for painful consequences (i.e. sexual indiscretion)

C. Does not meet criteria for a Mixed Episode (see page 36).

D. Symptoms must have cause marked impairment in social or occupational functioning, or have required hospitalization to prevent harm to self or others, or psychotic features are present.

E. Cannot be due to a medical condition, medication or drugs

II. Clinical Features of Manic Episodes

A. The most common presentation is excessive euphoria, but some patients may present only with irritability.

B. These patients need constant enthusiastic interaction with others, frequently using poor judgment in those interactions.

C. Lability of mood is common.

D. Grandiose delusions are common.

E. Sleeplessness can become severe and persist for days.

F. Speech is pressured, loud and intrusive. These patients are often difficult to interrupt. Flight of ideas can result in gross disorganization and incoherence of speech.

G. Increased psychomotor activity can result in excessive planning and participation; frequently without true accomplishment.

H. Engaging in reckless behavior with painful consequences is common (e.g., shopping sprees, excessive spending, sexual promiscuity).

I. Patients frequently lack insight into their behavior and resist treatment.

J. Patients may become grossly psychotic, invariably paranoid in nature.

K. Patients may become assaultive, particularly if psychotic.

L. Dysphoria is common at the height of a manic episode and the patient may become suicidal.

Hypomanic Episodes

I. DSM-IV Diagnostic Criteria

A. At least 4 days of abnormally and persistently elevated, expansive or irritable mood.

B. During the period of mood disturbance at least three of the following have persisted in a significant manner (four if mood is irritable):

1. Inflated self-esteem or grandiosity
2. Decreased need for sleep
3. The patient is more talkative than usual and feels pressure to keep talking.

4. Flight of ideas (jumping from topic-to-topic) or a subjective sense of racing thoughts.
5. Distractibility
6. Increased goal-directed activity or psychomotor agitation.
7. Excessive involvement in pleasurable activities that have a high potential for painful consequences (i.e. sexual promiscuity).

C. The mood disturbance and change in functioning is noticeable to others.

D. The change in functioning is uncharacteristic of the patient's baseline but does not cause marked social or occupational dysfunction, does not require hospitalization and no psychotic features are present.

E. Cannot be due to a medical condition, medication or drugs.

Mixed Mood Episodes

I. DSM-IV Diagnostic Criteria

A. Patient meets criteria for both Manic and Major Depressive Episodes for at least one week.

B. Symptoms are severe enough to cause marked impairment in occupational or social functioning, require hospitalization, or psychotic features are present.

C. Organic factors have been ruled out (medical conditions, medications, drugs).

II. Clinical Features of Mixed Mood Episodes

A. Patients subjectively experience rapidly shifting moods.

B. Patients frequently present with agitation, psychosis, suicidality, appetite disturbance and insomnia

Depressive Disorders

Major Depressive Disorder

I. DSM-IV Diagnostic Criteria

A. History of one or more Major Depressive Episodes

B. No history of Manic, Hypomanic or Mixed Episodes

II. Clinical Features of Major Depressive Disorder

A. High mortality; 15% suicide rate.

- **B.** Common co-morbid diagnoses include panic disorder, eating disorders, substance-related disorders. Don't forget to ask about these disorders when taking a history.
- **C.** Major Depressive Disorder can complicate the presentation and treatment of patients with medical conditions.
- **D.** The disorder often follows a severe stressor such as loss of a loved one.
- **E.** All patients should be asked about suicidal ideation as well as intent. Hospitalization may be necessary for acutely suicidal patients.
- **F.** Suicide risk may paradoxically increase as the patient begins to respond to treatment. Lack of initiative and poor energy can improve prior to mood allowing patients to follow through with suicidal ideas.
- **G.** Suicide risk is most related to the degree of hopelessness a patient is experiencing and not the degree of depression.

III. Epidemiology of Major Depressive Disorder

- **A.** Prevalence is approximately 3-6%, with 2:1 female-to-male ratio.
- **B.** Approximately 50% who have a single episode of Major Depressive Disorder will have a recurrence.
- **C.** Functioning returns to the premorbid level between episodes in approximately 2/3 of patients.
- **D.** Approximately two times more common in first degree relatives of patients with Major Depressive Disorder compared to the general population.

IV. Classification of Major Depressive Disorder

- **A. Major Depressive Disorder - with Psychotic Features:** Accompanied by hallucinations or delusions; may be mood-congruent (content consistent with typical depressive themes) or mood incongruent (content does not involve typical depressive themes).
- **B. Major Depressive Disorder, Chronic:** Full diagnostic criteria for Major Depressive Disorder have been met continuously for at least 2 years.
- **C. Major Depressive Disorder with Catatonic Features**
  Accompanied by at least 2 of the following:
  1. Motor immobility or stupor
  2. Excessive purposeless motor activity
  3. Extreme negativism or mutism
  4. Bizarre or inappropriate posturing, stereotyped movement, or facial grimacing
  5. Echolalia or echopraxia

D. Major Depressive Disorder with Melancholic Features
Depression is accompanied by severe anhedonia or lack of reactivity to usually pleasurable stimuli and at least 3 of the following:
1. Quality of mood is distinctly depressed
2. Mood is worse in the morning
3. Early morning awakening
4. Marked psychomotor slowing
5. Significant weight loss
6. Excessive guilt

E. Major Depressive Disorder with Atypical Features
Accompanied by mood reactivity and at least 2 of the following:
1. Significant weight gain
2. Hypersomnia
3. "Heavy" feeling in extremities (leaden paralysis)
4. Chronic pattern of rejection sensitivity resulting in significant social or occupational dysfunction.
5. Does not meet criteria for Major Depressive Disorder with Melancholic or Catatonic Features.

F. Major Depressive Disorder with Postpartum Onset: Onset of episode within 4 weeks postpartum.

G. Major Depressive Disorder with Seasonal Pattern
1. Recurrent episodes of depression with a pattern of onset at same time each year;
2. Full remissions occur at a characteristic time of year;
3. Over a 2 year period, at least 2 seasonal episodes have occurred, and no nonseasonal episodes have occurred;
4. Seasonal episodes outnumber non-seasonal episodes.

V. Differential Diagnosis of Major Depressive Disorder

A. Bereavement
1. May share many symptoms of a Major Depressive Episode.
2. Normal bereavement should not present with depressive symptoms which cause severe functional impairment lasting more than 2 months.

B. Adjustment Disorder with Depressed Mood
1. A stressful event may precede the onset of a major depressive episode.
2. If symptoms of Major Depression are not met, an adjustment disorder is probably present.

C. Anxiety Disorders
1. Symptoms of anxiety and depression frequently coexist with depression, and sometimes can be difficult to differentiate.
2. When anxiety symptoms coexist with depressive symptoms, the depression should receive first priority in treatment because it

carries a higher morbidity and mortality. Incidentally, antidepressants are often effective in treating anxiety disorders.

D. Schizophrenia and Schizoaffective Disorder

1. Subjective depression may accompany acute psychosis.
2. Severe psychotic depression may be difficult to distinguish from a primary psychotic disorder.
3. Clinical course and history will assist in differential diagnosis.
   - **a.** In psychotic depression, the mood symptoms generally precede the onset of psychotic symptoms.
   - **b.** Premorbid level of functioning and inter-episode functioning are generally higher in patients with mood disorders compared to patients with psychotic disorders.

E. Dementia

1. Both dementia and depression may present with complaints of apathy, poor concentration and impaired memory.
2. Cognitive deficits due to a mood disorder may appear to be dementia. "Pseudodementia" designates depression that mimics dementia.
3. Differentiation of dementia from depression can be very difficult, especially in the elderly. When in doubt, a trial of antidepressants is indicated, since depression is treatable and dementia is not.
4. Careful medical history and examination can suggest possible medical/organic causes of dementia. Workup is then indicated (see Cognitive Disorders, page 111).

F. Mood Disorder Due to a General Medical Condition

1. A thorough medical history and examination can suggest potential medical conditions which present with depressive symptoms. (see page 124).
2. Use this diagnosis when the mood disorder is a direct physiological consequence of the medical disorder and not a response to being ill. For example, Parkinson's disease is associated with a depressive syndrome which is not just a reaction to the disability of the disease.

G. Substance-Induced Mood Disorder

1. Careful examination of all medications, drugs of abuse or toxin exposure is necessary.
2. Alcohol, drug abuse, sedatives, antihypertensives, steroids, hormones and oral contraceptives can all cause depressive symptoms.
3. Abrupt cessation of sympathomimetics or amphetamines may produce a depressive syndrome.

VI. Pharmacotherapy of Depression (also see "Psychiatric Therapy," page 137)

A. Selecting an Antidepressant Agent:

1. All antidepressant drugs have shown equal efficacy, but they have different side-effect profiles.
2. There is no sure way of predicting which patients will respond to a specific antidepressant based on clinical presentation.
3. Previously, it was thought that agitated depressions respond better to sedating antidepressants and that depressed patients with prominent psychomotor retardation respond better to non-sedating antidepressants. However, there is no empirical evidence to support this conclusion.
4. If the patient or a first-degree relative has had a previous beneficial response to a given medication, consider using this medication.
5. Otherwise, select an agent based on the expected tolerance to side effects, the patient's age, suicide potential, and any coexisting diseases or medications.
   a. Recent studies suggest that selective serotonin reuptake inhibitors (SSRI's) are much safer in patients with a history of cardiac disease.
   b. SSRI's are safer than heterocyclic antidepressants in overdose, making them preferable for suicidal patients.

B. Classification of Antidepressant Agents

1. **Heterocyclic Antidepressants:**
   a. Side effects (especially sedation and anticholinergic side effects) are worse during the first month of therapy and can diminish over time.
   b. Early in the treatment course, patients may sleep better, but patients rarely describe affective improvement until after at least 3-4 weeks.
   c. Only minimum quantities should be prescribed because of the potential of tricyclics to cause a fatal overdose in suicide-prone patients.
   d. Use of heterocyclic antidepressants in the elderly may be limited by the sensitivity of these patients to anticholinergic side effects, even at sub-therapeutic doses.
2. **Selective Serotonin Reuptake Inhibitors (SSRIs)**
   a. SSRIs include fluoxetine (Prozac), sertraline (Zoloft), paroxetine (Paxil), and the new SSRI-equivalent venlafaxine (Effexor).
   b. SSRI's are commonly used as first-line agents as well as secondary choices for depression that does not respond to tricyclics.

c. SSRIs, with their comparatively benign side-effect profile, allow once-daily dosing and present less danger from overdose because they lack the cardiovascular toxicity of the tricyclics.

d. Another advantage of SSRI's is that they require less dosage titration, and a therapeutic response may be achieved earlier.

e. Although many patients take SSRIs with no adverse consequences, the most frequent side effects are insomnia, agitation, and sexual dysfunction.

3. Atypical Agents

a. Bupropion (Wellbutrin): Bupropion is a mildly stimulating antidepressant, and is particularly useful in patients who have had sexual impairment from other drugs.

b. The short half-life of bupropion makes multiple daily doses necessary, complicating compliance.

4. Monoamine Oxidase Inhibitors

a. Contraindications discourage common use.

b. Side Effects: Orthostatic hypotension; requires a tyramine-free diet. Risk of hypertensive crisis.

c. Drug Interactions: Epinephrine, meperidine (Demerol), and SSRI's. These interactions can be life-threatening.

VII. Electroconvulsive Therapy for Depression (also see "Psychiatric Therapy," page 137)

A. ECT is a safe and effective treatment for depression, especially if there is a high risk for suicide or insufficient time for a trial of medication.

VIII. Follow-up Care for Depression

A. Maintenance therapy is usually provided for up to one year followed by tapering of medication.

B. For patients with repeated episodes of major depressive disorder, lifetime maintenance of drug therapy may be necessary.

IX. Psychotherapy for Major Depressive Disorder

A. A wide variety of psychotherapies have been described as effective in the treatment of Major Depressive Disorder, especially cognitive psychotherapy and insight oriented psychotherapy.

B. Most studies have demonstrated that combined pharmacotherapy and psychotherapy is the most effective treatment for Major Depressive Disorder.

Dysthymic Disorder

I. DSM-IV Diagnostic Criteria

- **A.** Depressed mood is present for most of the day, for more days than not and depression has been present for at least two years.
- **B.** Presence of at least two of the following:
  - **1.** Poor appetite or overeating
  - **2.** Insomnia or hypersomnia
  - **3.** Low energy or fatigue
  - **4.** Low self-esteem
  - **5.** Poor concentration or difficulty making decisions
  - **6.** Hopelessness
- **C.** Over the two year period, the patient has never been without symptoms for more than two months consecutively.
- **D.** No Major Depressive Episode has occurred during the first two years of the disturbance.
- **E.** No Manic, Hypomanic or Mixed episode, or evidence of cyclothymia is present.
- **F.** Symptoms do not occur with a chronic psychotic disorder.
- **G.** Symptoms are not due to substance use or general medical condition.
- **H.** Symptoms cause significant social, occupational dysfunction or marked subjective distress.

II. Clinical Features of Dysthymic Disorder

- **A.** Symptoms of dysthymic disorder are similar to major depression. The most common symptoms are loss of pleasure, feelings of inadequacy, social withdrawal, guilt, irritability, and decreased productivity.
- **B.** Changes in sleep, appetite or psychomotor behavior are less common than they are in Major Depressive Disorder.
- **C.** Patients are often somatic and complain of multiple physical problems which may impair occupational or interpersonal adjustment. Psychotic symptoms are not present.
- **D.** Episodes of major depression may occur after the first two years of the disorder and treatment usually returns patient to dysthymic rather than the euthymic state. The combination of Dysthymia and Major Depression is known as “Double Depression”.

III. Epidemiology of Dysthymic Disorder

- **A.** Lifetime prevalence is approximately 6%, with a 2-3: 1 female: male ratio.
- **B.** Onset usually occurs in childhood or adolescence
- **C.** Dysthymia that occurs prior to the onset of Major Depression has a worse prognosis than Major Depression without dysthymia.

IV. Classification of Dysthymic Disorder

- **A.** Early Onset Dysthymia: Onset occurs before age 21.
- **B.** Late Onset Dysthymia: Onset occurs at age 21 or older.
- **C.** Dysthymia with Atypical Features is accompanied by mood reactivity and at least 2 of the following:
  - **1.** Significant weight gain
  - **2.** Hypersomnia
  - **3.** "Leaden" paralysis characterized by feeling heavy or weighted down physically.
  - **4.** Chronic pattern of rejection sensitivity that results in significant social or occupational dysfunction.

V. Differential Diagnosis of Dysthymic Disorder

- **A. Major Depressive Disorder:** Dysthymia leads to chronic less severe depressive symptoms compared to Major Depression which usually has one of more discrete episodes.
- **B. Substance-Induced Mood Disorder:** Alcohol, benzodiazepines and other sedative - hypnotics can mimic Dysthymia symptoms, as can chronic use of amphetamines or cocaine. Anabolic steroids, oral contraceptives, methyldopa, beta adrenergic blockers and isotretinoin (Accutane) have also been linked to depressive symptoms. Rule out with careful history of drugs of abuse and medications.
- **C. Mood Disorder Due to a General Medical Condition:** Depressive symptoms consistent with Dysthymia occur in a variety of medical conditions. These disorders include: stroke, Parkinson's disease, multiple sclerosis, Huntington's disease, vitamin B_{12} deficiency, hypothyroidism, Cushing's disease, pancreatic carcinoma, HIV and others. Rule out with history, physical exam and labs as indicated.
- **D. Psychotic Disorders:** Depressive symptoms are common in chronic psychotic disorders and Dysthymia should not be diagnosed if symptoms occur only during psychosis, including residual phases.
- **E. Personality disorders:** Personality disorders frequently coexist with Dysthymic Disorder.

VI. Treatment of Dysthymic Disorder

- **A. Hospitalization** is usually not required unless suicidality present.
- **B. Antidepressants:**
  - **1.** Although psychotherapy has been the primary treatment for Dysthymic Disorder, there is evidence that many patients respond well to antidepressants and deserve a trial especially if therapy has failed.
  - **2.** New generation antidepressants, such as the SSRI's, are most often used. If these or other newer antidepressants such as

venlafaxine or bupropion have failed, then a tricyclic antidepressant such as desipramine up to 150 to 200 mg per day should be tried.

C. Psychotherapy: Cognitive psychotherapy may help patients deal with incorrect negative attitudes about themselves. Insight oriented psychotherapy may help patients resolve early childhood conflicts that have precipitated depressive symptoms.

D. Combined psychotherapy and pharmacotherapy produces the best outcome.

Bipolar I Disorder

Bipolar I Disorder is a disorder in which at least one manic or mixed episode clearly is or has been present.

I. DSM-IV Criteria for Bipolar I Disorder

A. One or more Manic or Mixed episodes.

B. Commonly accompanied by a history of one or more major depressive episodes, but not required for the diagnosis.

C. Manic or Mixed episodes cannot be due to a medical condition, medication, drugs of abuse, toxins or treatment for depression.

D. Symptoms cannot be accounted for by a psychotic disorder.

II. Clinical Features of Bipolar I Disorder

A. Greater than 90% of patients who have a single manic episode will have a recurrence.

B. Mixed episodes are more likely in younger patients.

C. Episodes occur more frequently with age.

D. Social and occupational consequences of Manic episodes can be severe (e.g.; violence, child abuse, excessive debt, job loss, divorce).

E. Manic episodes are more likely to receive clinical attention compared to Depressive episodes.

F. The suicide rate of bipolar patients is 10-15%

G. Common co-morbid diagnoses include substance-related disorders, eating disorders, attention deficit hyperactivity disorder

H. Rapid cycling pattern carries a poor prognosis and may effect up to 20% of bipolar patients.

III. Epidemiology of Bipolar I Disorder

A. The lifetime prevalence of bipolar disorder is approximately 0.5-1.5%

B. Male: female ratio-- 1:1

C. The first episode in males tends to be a manic episode, while the first episode in females tends to be a depressive episode.
D. First degree relatives have higher rates of mood disorder.
E. Bipolar disorder has a 70% concordance rate among monozygotic twins.

IV. Classification of Bipolar I Disorder

A. Classification of Bipolar I Disorder involves describing the current or most recent mood episode - Manic, Hypomanic, Mixed or Depressive. (e.g. Bipolar I Disorder - Most recent episode Mixed)
B. The most recent episode can be further classified as follows:
  1. Without psychotic features
  2. With psychotic features
  3. With catatonic features
  4. With postpartum onset
C. Bipolar I Disorder with Rapid Cycling
  1. Diagnosis requires the presence of at least 4 mood episodes within 1 year.
  2. Rapid cycling mood episodes may include Major Depressive, Manic, Hypomanic or Mixed episodes
  3. The patient must be symptom-free for at least 2 months between episodes or the patient must switch to an opposite episode.

V. Differential Diagnosis of Bipolar I Disorder

A. Cyclothymic Disorder: Mood episodes never meet criteria for full manic episode or full major depressive episode.
B. Psychotic Disorders
  1. The clinical presentation of a patient at the height of a manic episode may be indistinguishable from an acute exacerbation of paranoid schizophrenia, making accurate diagnosis difficult unless clear history is available.
  2. If history is unavailable or the patient is having an initial episode, it may be necessary to observe the patient over time to make an accurate diagnosis. A subsequent Major Depressive Episode or Manic episode that initially presents with mood symptoms prior to the onset of psychosis would indicate a mood disorder rather than a psychotic disorder.
  3. Family history of mood disorder or psychotic disorder may be suggestive of diagnosis.
C. Substance-Induced Mood Disorder: Rule out the effects of medication or drugs of abuse. Common organic causes of mania include sympathomimetics, amphetamines, steroids and H_2 blockers such as cimetidine (see page 124).

D. Mood Disorder Due to a General Medical Condition (see page 124).

VI. Treatment of Bipolar I Disorder

A. Assessment of suicidality is essential, ask about suicidal ideation as well as intent.

B. Hospitalization may be necessary for either Manic or Depressive mood episodes.

C. Pharmacotherapy

1. Mood stabilizers such as lithium and the anticonvulsants have proven effective in the acute treatment as well as the prophylaxis of mood episodes. (Also see "Psychiatric Therapy," page 137).

2. ECT is very effective for bipolar disorder (Depressed or Manic episodes) but is generally used after conventional pharmacotherapy has failed or is contraindicated.

3. Antidepressants may be used for treatment of major depressive episodes, but should be accompanied by a mood stabilizer to prevent precipitating a manic episode.

4. Antidepressants may induce rapid cycling.

5. Adjunctive use of antipsychotics (if psychosis if present) or sedating benzodiazepines such as clonazepam and lorazepam (for severe agitation) may be necessary.

D. Psychotherapy

1. Therapy aimed at increasing insight and dealing with the consequences of manic episodes may be very helpful.

2. Family/Marital therapy may also help increase the family's understanding and tolerance of the affected family member.

3. Family support groups such as the Alliance for the Mentally Ill (AMI) and patient support groups such as Manic Depressive Association (MDA) can be very helpful.

Bipolar II Disorder

I. DSM-IV Diagnostic Criteria

A. One or more major depressive episodes and at least one hypomanic episode

B. Mood episodes cannot be due to a medical condition, medication, drugs of abuse, toxins or treatment for depression.

C. Symptoms cannot be accounted for by a psychotic disorder.

II. Clinical Features of Bipolar II Disorder

- **A.** Hypomanic episodes tend to occur in close proximity to depressive episodes
- **B.** Episodes occur more frequently with age.
- **C.** Social and occupational consequences of Bipolar II can be severe (e.g. job loss and divorce).
- **D.** These patients have a suicide rate of 10-15%
- **E.** Common co-morbid diagnoses includes substance-related disorders, eating disorders, attention deficit hyperactivity disorder, borderline personality disorder.
- **F.** Rapid cycling pattern carries a poor prognosis.

III. Epidemiology

- **A.** The lifetime prevalence of bipolar II is 0.5%
- **B.** Possibly more common in women

IV. Classification of Bipolar II Disorder

- **A.** Classification of bipolar II disorder involve, describing the current or most recent mood episode which can be Hypomanic, or Depressive.
- **B. The most recent episode can be further classified as follows**
  1. Episodes without Psychotic Features
  2. Episodes with Psychotic Features
  3. Episodes with Catatonic Features
  4. Episodes with Post partum Onset
- **C. Bipolar II Disorder with Rapid Cycling**
  1. Diagnosis requires the presence of at least 4 mood episodes within 1 year.
  2. Episodes may include major depressive, manic, hypomanic or mixed.
  3. The patient must be symptom-free for at least 2 months between episodes or the patient must display a change in mood to an opposite type of episode.

V. Differential Diagnosis of Bipolar II Disorder

- **A. Cyclothymic Disorder:** Mood episodes never meet criteria for full manic episode or full major depressive episode.
- **B. Substance - Induced Mood Disorder:** Rule out the effects of medication, drugs of abuse, toxin exposure.
- **C. Mood Disorder Due to a General Medical Condition.**

VI. Treatment of Bipolar II Disorder

- **A.** The treatment of Bipolar II disorder involves lithium and/or anticonvulsants, and is similar to the treatment of in Bipolar I Disorder, described above.

Cyclothymic Disorder

Cyclothymic disorder consists of chronic, cyclical episodes of mild depression and symptoms of mild mania.

I. DSM IV Diagnostic Criteria

- **A.** Many periods of depression and hypomania, occurring for at least 2 years. Depressive episodes do not reach severity of major depression.
- **B.** During the 2 year period, the patient has not been symptom free for more than 2 months at a time.
- **C.** During the 2 year period no episodes of major depression, mania or mixed states were present.
- **D.** Symptoms are not accounted for by schizoaffective disorder and do not coexist with schizophrenia, schizophreniform disorder, delusional disorder, or any other psychotic disorder.
- **E.** Symptoms are not due to substance use or general medical condition.
- **F.** Symptoms cause significant distress or functional impairment.

II. Clinical Features of Cyclothymic Disorder

- **A.** Symptoms are similar to bipolar I disorder but of less magnitude, cycles are faster.
- **B.** Patients frequently have coexisting substance abuse.
- **C.** One third of patients develop severe mood disorder (usually bipolar II).
- **D.** Occupational and interpersonal impairment is frequent and usually a consequence of hypomanic states.
- **E.** Cyclothymic disorder can coexist with borderline personality disorder.

III. Epidemiology of Cyclothymic Disorder

- **A.** Prevalence is about 1% but cyclothymic disorder constitutes 5-10% of psychiatric outpatients.
- **B.** Onset occurs between age 15 and 25.
- **C.** Women affected more than men with a ratio of 3:2.
- **D.** 30% of patients have a family history of bipolar disorder.

IV. Differential Diagnosis of Cyclothymic Disorder

- **A. Bipolar II Disorder:** Patients with bipolar type II disorder exhibit hypomania and episodes of major depression.
- **B. Substance-Induced Mood Disorder/Mood Disorder Due to a General Medical Condition:** Organic causes of mania and depression must be ruled out.

C. Personality Disorders: Personality disorders (antisocial, borderline, histrionic, narcissistic) can be characterized by marked shifts of mood. Personality disorders may coexist with cyclothymic disorder.

V. Treatment of Cyclothymic Disorder

A. Mood stabilizers are the treatment of choice. Lithium is effective in 60% of subjects. Use of mood stabilizers is similar to that in bipolar disorder. (Also see "Psychiatric Therapy," page 137).

B. Depressive episodes must be treated cautiously because of the risk of precipitating manic symptoms with antidepressants (occurs in 50% of treated patients). Antidepressants can also increase the rate of cycling. Patients can be treated concurrently with anti-manics and antidepressants.

C. Patients often require supportive therapy to improve their awareness of their illness and to deal with the functional consequences of behavior.

Anxiety Disorders

Generalized Anxiety Disorder

Generalized anxiety disorder (GAD) is the most common of the anxiety disorders. It is defined as unrealistic or excessive anxiety and worry about two or more life circumstances for at least six months.

I. DSM-IV Diagnostic Criteria for Generalized Anxiety Disorder

- **A.** Excessive anxiety worry is present most days during at least a six month period, and involves a number of life events.
- **B.** The anxiety is difficult to control.
- **C.** At least three of the following:
  - **1.** Restlessness or feeling on edge
  - **2.** Easy fatigability
  - **3.** Difficulty concentrating
  - **4.** Irritability
  - **5.** Muscle tension
  - **6.** Sleep disturbance
- **D.** The focus of anxiety is not anticipatory anxiety about having a panic attack as in panic disorder.
- **E.** The anxiety or physical symptoms cause significant distress or impairment in functioning.
- **F.** Symptoms are not due to substance use or a medical condition, and symptoms are not related to a mood or psychotic disorder.

II. Clinical Features of Generalized Anxiety Disorder

A. Other features often include insomnia, irritability, trembling, muscle aches and soreness, muscle twitches, clammy hands, dry mouth, and a heightened startle reflex. Patients may also report palpitations, dizziness, difficulty breathing, urinary frequency, dysphagia, light-headedness, abdominal pain, and diarrhea.

B. Patients may report that they "can't stop worrying," which may revolve around valid concerns about money, jobs, marriage, health, and the safety of children.

C. Mood disorders, substance related disorders, and stress related disorders, such as headaches, commonly coexist with GAD.

D. Up to one fourth of GAD patients develop panic disorder.

E. Excessive worry and somatic symptoms, including autonomic hyperactivity and hypervigilance, occur most days, and they occur during most of the day.

F. Chronic worry is a prominent feature of generalized anxiety disorder unlike the intermittent terror that characterizes panic disorder.

G. 30-50% of patients with anxiety disorders will also meet criteria for Major Depressive Disorder.

H. Drugs and alcohol may cause an anxiety disorder or may be an attempt at self-treatment. Substance abuse may be a complication of GAD.

III. Epidemiology

A. Lifetime prevalence is 5%.

B. The sex ratio for GAD is about 2:1, female to male.

C. Most patients report excessive anxiety during childhood or adolescence; however, onset after age 20 does occur.

IV. Differential Diagnosis of Generalized Anxiety Disorder

A. Substance Induced Anxiety Disorder: Substances such as caffeine, amphetamines, or cocaine, can cause anxiety symptoms. Alcohol or benzodiazepine withdrawal can mimic symptoms of GAD. These disorders should be ruled out with history and toxicology screen.

B. Panic Disorder, Obsessive Compulsive Disorder, Social Phobia, Hypochondriasis and Anorexia Nervosa

1. Many psychiatric disorders present with marked anxiety, and the diagnosis of GAD should be made only if the anxiety is unrelated to the other disorders.

2. For example, GAD should not be diagnosed in panic disorder if the patient has excessive anxiety about having a panic attack, or if an anorexic patient has anxiety about weight gain.

C. Anxiety Disorder Due to a General Medical Condition: Hyperthyroidism, cardiac arrhythmias, pulmonary embolism, congestive heart failure, hypoglycemia, vestibular disease, chronic obstructive pulmonary disease may produce significant anxiety and should be ruled out as clinically indicated (see page 125).

D. Mood and Psychotic Disorders

1. Excessive worry and anxiety occurs in many mood and psychotic disorders.

2. If anxiety occurs only during the course of the mood or psychotic disorder, then GAD can not be diagnosed.

V. Laboratory Evaluation of Anxiety

A. Evaluate serum glucose, calcium and phosphate levels; electrocardiogram, thyroid studies.

B. Other Studies: Urine drug screen, cortisol or urinary catecholamine levels.

VI. Treatment of Generalized Anxiety Disorder

A. The combination of pharmacologic therapy and psychotherapy is the most successful form of treatment.

B. Nondrug Approaches to Anxiety

1. Patients should stop drinking coffee and other caffeinated beverages, and avoid excess alcohol consumption.

2. Patients should get adequate sleep, with the use of medication if necessary. Moderate exercise each day may help reduce the intensity of anxiety symptoms.

3. Psychotherapy:

a. A cognitive behavioral therapy, with emphasis on relaxation techniques and instruction on misinterpretation of physiologic symptoms, may improve functioning in mild cases.

b. Supportive or insight oriented psychotherapy can be helpful in mild cases, but probably is best used as adjunct to medication.

C. Pharmacotherapy of Generalized Anxiety Disorder

1. Buspirone

a. Buspirone is a first line treatment of GAD. Buspirone usually requires three to six weeks of a dose range of 10 to 20 mg tid for efficacy. Buspirone lacks sedative effects. Tolerance to the beneficial effects of buspirone does not seem to develop, and there is no known withdrawal syndrome.

b. Combined benzodiazepine-buspirone therapy may be used for generalized anxiety disorder, with subsequent tapering of the benzodiazepine after two to four weeks.

c. Patients who have been previously treated with benzodiazepines or who have a history of substance abuse have a decreased response to buspirone.

d. It does not produce physiologic dependence and may have some antidepressant effects.

2. Antidepressants

a. SSRIs and tricyclic antidepressants are widely used to treat anxiety disorders. Their onset of action is much slower than that of the benzodiazepines, but they have no addictive potential and may be more effective. An antidepressant is the agent of choice when elements of depression are present in addition to anxiety.

b. Antidepressants are preferred by many physicians as initial agents in the treatment of anxiety, especially in patients with mixed symptoms of anxiety and depression or uncertain diagnoses.

3. Benzodiazepines

a. Benzodiazepines can almost always relieve anxiety if given in adequate doses and they have no delayed onset of action.

b. Despite their effectiveness, long-term use should be reserved for patients who have failed to respond to buspirone and antidepressants or who are intolerant to their side effects. If a patient cannot function without pharmacological intervention, some degree of managed drug dependency may be necessary.

c. Benzodiazepines are very useful for treating anxiety during the period in which it takes buspirone or antidepressants to exert their effects. Benzodiazepines should then be tapered after several weeks.

d. Benzodiazepines have few side effects. Tolerance to their sedative effects develops, but not to their antianxiety properties.

e. Since clonazepam and diazepam (Valium) have long half-lives, they are less likely to result in interdose anxiety and are easier to taper.

f. Drug dependency becomes a clinical issue if the benzodiazepine is used regularly for more than 2-3 weeks. A withdrawal syndrome occurs in 70% of patients including intense anxiety, tremulousness dysphoria, sleep and perceptual disturbances and appetite suppression. Slow tapering of benzodiazepines is crucial.

g. Unlike buspirone and antidepressants which have a constant effect, the antianxiety effects of benzodiazepines occur in immediate proximity to ingestion of the drug, and, for this reason, patients tend to develop a more intense psychological dependence to the benzodiazepines.

h. Anxiety disorders commonly coexist with mood disorders. Patients who meet criteria for both generally should not receive long-term benzodiazepines, and they are best treated with antidepressants (see psychiatric therapy, page 137).

Panic Disorder

Patients with panic disorder report discrete periods of intense terror and fear of impending doom that are almost intolerable.

I. DSM-IV Criteria for Panic Disorder with Agoraphobia

A. Both 1 and 2

1. Recurrent unexpected panic attacks occur, during which four of the following symptoms begin abruptly and reach a peak within 10 minutes in the presence of intense fear:

a. Palpitations, increased heart rate
b. Sweating
c. Trembling or shaking
d. Sensation of shortness of breath
e. Feeling of choking
f. Chest pain or discomfort
g. Nausea or abdominal distress
h. Feeling dizzy, lightheaded or faint
i. Derealization or depersonalization
j. Fear of losing control or going crazy
k. Fear of dying
l. Paresthesias
m. Chills or hot flushes

2. At least one of the attacks has been followed by 1 month of one of the following:

a. Persistent concern about having additional attacks

b. Worry about the implications of the attack, such as fear of having a heart attack or going crazy.
c. A significant change in behavior related to the attacks

B. The presence of Agoraphobia which has the following three components:
1. Anxiety about being in places or situations where escape might be difficult or embarrassing, or in which help might not be available.
2. Situations are avoided or endured with marked distress, or these situations are endured with anxiety about panic symptoms, or these situations require the presence of a companion.
3. The anxiety is not better accounted for by another disorder such as Social Phobia where phobic avoidance is only limited to social situations.

C. Panic attacks are not due to the effects of a substance or medical condition.
D. The panic attacks are not caused by another mental disorder such as panic on exposure to social situations in Social Phobia, or panic in response to stimuli of a severe stressor, such as with Post-Traumatic Stress Disorder.

II. DSM-IV Criteria for Panic Disorder without Agoraphobia

The DSM-IV diagnostic criteria are the same as panic disorder with agoraphobia except there are no symptoms of agoraphobia.

III. Clinical Features of Panic Disorder

A. Without treatment, patients often fear that they have a serious medical condition.
B. Marked anxiety about having future panic attacks (anticipatory anxiety) is common.
C. In agoraphobia, the most common fears are of being outside alone or of being in crowds or traveling.
D. The first panic attack often occurs without a acute stressor or warning. Later in the disorder, panic attacks may generalize to specific situations and phobic avoidance can occur.
E. Major Depression occurs in over fifty percent of patients.
F. Elevation of blood pressure and tachycardia may occur during a panic attack.
G. Agoraphobia may develop in patients with simple panic attacks.

IV. Epidemiology of Panic Disorder

A. Lifetime prevalence of panic disorder is between 1.5% and 3.5%.
B. Female-to-male ratio is 3 to 1.
C. Up to one half of Panic Disorder patients have Agoraphobia.

D. Panic disorder usually develops in early adulthood with peak onset in the mid twenties. Onset after age 45 years is very unusual.

E. First degree relatives have an eightfold increase in panic disorder as compared to the general population.

F. The course is often chronic, but symptoms may wax and wane depending on the presence of stressors.

G. 50% of panic disorder patients are only mildly affected. 20% have marked symptomatology.

H. Suicide risk is markedly increased, especially in untreated patients.

I. Substance abuse, especially with alcohol, may occur in up to 40% of patients.

V. Classification of Panic Disorder

A. Unexpected Panic Attacks: These panic attacks occur spontaneously without any situational trigger.

B. Situationally-Bound Panic Attacks: These panic attacks occur immediately after exposure to the feared stimulus, such as being in a high place or after seeing a snake.

C. Situationally-Predisposed Panic Attacks: These panic attacks usually occur with exposure to the feared stimulus, but do not necessarily occur immediately after exposure. For example, an individual who often has panic attacks in crowded situations may not have an attack in every situation, or the attack may occur only after spending a significant amount of time in the situation.

VI. Differential Diagnosis of Panic Disorder

A. Generalized Anxiety Disorder: Anxiety is more constant than in panic disorder. Panic disorder is characterized by discrete episodes of severe anxiety along with physiologic symptoms.

B. Substance-Induced Anxiety Disorder: Stimulants such as amphetamines, cocaine or caffeine can mimic panic attacks. Physiologic withdrawal from depressants such as alcohol, benzodiazepines or barbiturates can also precipitate panic attacks.

C. Anxiety Due to a General Medical Condition: Pheochromocytoma may mimic panic disorder and is characterized by markedly elevated blood pressure during the episodes of anxiety. It is ruled out by measuring urine catecholamines. Other medical conditions such as cardiac arrhythmias, hyperthyroidism, pulmonary embolism and hypoxia can present with symptoms similar to panic attacks (see page 125). A thorough history and physical with lab tests and toxicology screen is indicated to rule out medical or substance abuse disorder as the etiology of symptoms.

VII. Treatment of Panic Disorder

A. In mild cases, cognitive behavioral psychotherapy with emphasis on relaxation and instruction on misinterpretation of physiologic symptoms may greatly improve functioning.

B. Pharmacotherapy is indicated when patients have marked distress from panic attacks or are experiencing impairment in work or social functioning.

1. While alprazolam (Xanax) is currently the only FDA approved agent, many psychiatrists prefer a trial of a TCA, SSRI or MAOI.
2. SSRI's are becoming the first line treatment for Panic Disorder. Patients should be started at the lowest possible dose, such as 10 mg of paroxetine or 25 mg of Sertraline. The dose may then be gradually titrated up to 20-40 mg for paroxetine or 50 to 100 mg for sertraline. Prozac (fluoxetine) may exacerbate panic symptoms unless begun at very low doses (2-5 mg).
3. When using a tricyclic antidepressant, the beginning dose should also be low due to the potential of exacerbating panic symptoms early in treatment. Imipramine is the best studied agent and should be started at 10 to 25 mg per day and increased slowly up to approximately 100-200 mg per day as tolerated.
4. Monoamine oxidase inhibitors may be the most efficacious agents available for panic disorder, but are less often used due to concern over hypertensive crisis when patients do not follow a low tyramine diet.
5. Benzodiazepines may be used adjunctively with TCAS, SSRI's or MAOIs during the first few weeks of treatment. When a patient has failed other agents, benzodiazepines are very effective. Alprazolam should be given four times a day to decrease interdose anxiety with an average total dose of 2 mg per day. Some patients may require up to 6 mg per day. A long acting agent such as clonazepam is also effective and has decrease interdose anxiety compared to alprazolam.
6. Buspirone is not effective in panic disorder.
7. The combination of medication and cognitive-behavioral therapy is the best treatment strategy.

Obsessive-Compulsive Disorder

I. DSM-IV Criteria

A. Either Obsessions or Compulsions are present

1. Obsessions

a. Recurrent, persistent thoughts, impulses or images experienced as intrusive and causing marked anxiety.

b. The thoughts, impulses or images are not just excessive worries about real problems.

c. The person attempts to ignore or suppress symptoms, or attempts neutralize them with some other thought or action.

d. The person recognizes the thoughts, impulses or images as a product of his or her own mind.

2. Compulsions

a. Repetitive behaviors or acts that the person feels driven to perform in response to an obsession.

b. These behaviors or mental acts are aimed at preventing distress or preventing some dreaded event, but they are not connected in a realistic way to what they are attempting to prevent, or they are clearly excessive.

3. The person has recognized that the obsessions or compulsions are excessive or unreasonable.

4. The obsessions or compulsions cause marked distress, take more than a hour a day, or significantly interfere with functioning.

5. If another psychiatric disorder is present, the content of the symptoms is not restricted to the disorder (e.g., preoccupation with food in an eating disorder, or preoccupation with drugs in a substance abuse disorder).

6. The disturbance is not due to a substance or medical condition.

7. Specify if the patient has poor insight into his illness. Poor insight is present if for most of the current episode, the person does not recognize the symptoms as excessive or unreasonable.

II. Clinical Features of Obsessive-Compulsive Disorder (OCD)

A. Compulsions often occupy a large portion of an individuals day leading to marked functional impairment.

B. Situations that provoke symptoms are often avoided, such as occurs when an individual with obsessions of contamination avoids touching anything that might be dirty.

C. Patients are reluctant to discuss symptoms, leading to under diagnosis of this disorder.

D. Depression is common in patients with OCD.

E. Alcohol or sedative-hypnotic drug abuse to reduce distress is common.

F. Washing and checking rituals are common in children with OCD who may not consider their behavior to be unreasonable or excessive.

III. Epidemiology of Obsessive-Compulsive Disorder

A. Lifetime prevalence of OCD is approximately 2.5%.

B. There is no sex difference in prevalence, but the age of onset is earlier in males.

C. OCD usually begins in adolescence or early adulthood, but may occasionally begin in childhood.

D. Onset is usually gradual and most patients have a chronic disease course with waxing and waning of symptoms in relation to life stressors.

E. 15% of patients have a chronic debilitating course with marked impairment in social and occupational functioning.

F. Up to 50% of patients with Tourette's disorder have coexisting OCD; however, only 5% of OCD patients have Tourette's disorder

IV. Differential Diagnosis of Obsessive-Compulsive Disorder

A. Substance Induced Anxiety Disorder or Anxiety Disorder Due to a Medical Condition: A thorough history and physical with lab tests and toxicology screen is indicated to rule out medical or substance abuse disorder as the etiology of symptoms. Amphetamines, cocaine, caffeine and other symptomatic agents may mimic some of the anxiety symptoms associated with OCD. On rare occasions a brain tumor or temporal lobe epilepsy can manifest with OCD symptoms. (See page 125)

B. Major Depressive Disorder: Major Depression may be associated with severe obsessive ruminations (e.g., obsessive rumination about finances or a relationship). These obsessive thoughts are usually not associated with compulsive behaviors and are accompanied by other symptoms of depression.

C. Generalized Anxiety Disorder: In GAD obsessive worries are about real life situations; however, in OCD obsessions usually do not involve real life situations.

D. Specific or Social Phobia, Body Dysmorphic Disorder or Trichotillomania: Recurrent thoughts, behaviors or impulses may occur in these disorders. OCD should not be diagnosed if symptoms are only related to another psychiatric condition (e.g., hair pulling in trichotillomania).

E. Schizophrenia: Schizophrenics may have obsessive thoughts or compulsive behaviors; however, frank hallucinations, and delusions are not seen in OCD.

F. Obsessive-Compulsive Personality Disorder (OCPD): Individuals with OCPD are preoccupied with perfectionism, order and control and

their behavior is generally ego-syntonic. They do not exhibit obsessions or compulsions.

V. Treatment of Obsessive Compulsive Disorder

A. Pharmacotherapy is almost always indicated.

B. Clomipramine, fluoxetine and fluvoxamine are the only FDA approved agents in OCD; however, other selective serotonin reuptake inhibitors are probably as effective.

C. Standard antidepressant doses of clomipramine are effective, but SSRI's may require high doses such as 60-80 mg of fluoxetine, 45-60 mg of paroxetine or 200 mg of sertraline.

D. Behavior therapy like thought stopping, desensitization or flooding may also be effective. Often a combination of behavioral therapy and medication will produce the best outcome.

E. Insight oriented psychotherapy has not been shown to be effective in OCD.

Social Phobia

I. DSM-IV Diagnostic Criteria for Social Phobia

1. A marked and persistent fear of social or performance situations in which the person is exposed to unfamiliar people or to scrutiny by others. The individual often fears that he will act in a way that will be humiliating or embarrassing.

2. Exposure to the feared situation almost invariably provokes anxiety which may take the form of a panic attack.

3. The person recognizes that the fear is excessive or unreasonable.

4. The feared situations are avoided or endured with intense distress.

5. The avoidance, anxious anticipation, or distress in the feared situations interferes with normal functioning or causes marked distress.

6. The duration of symptoms is at least six months.

7. The fear is not due to a substance or medical condition, and is not caused by another disorder.

8. If a medical condition or another mental disorder is present, the fear should be unrelated (e.g., the fear is not of trembling in a patient with Parkinson's disease).

9. **Specify** If the Fear Is Generalized: The fear is generalized if the fears include most social situations.

II. Clinical Features of Social Phobia

A. Patients often display hypersensitivity to criticism, have difficulty being assertive, have low self esteem, and inadequate social skills.

B. Avoidance of speaking in front of groups may lead to work or school difficulties.

C. Most patients fear public speaking, while less than half fear meeting new people.

D. Less common fears include eating, drinking, or writing in public, or of using a public restroom

III. Epidemiology and Etiology of Social Phobia

A. Lifetime prevalence is 3-13%.

B. Social phobia is more frequent in first degree relatives of patients with the disorder.

C. Onset usually occurs in adolescence, with a childhood history of shyness.

D. Social Phobia is often a lifelong problem, but the disorder may remit or improve in adulthood.

IV. Differential Diagnosis of Social Phobia

A. Substance-Induced Anxiety Disorder

Substances such as caffeine, amphetamines, cocaine, alcohol or benzodiazepines may cause a withdrawal syndrome that can mimic symptoms of social phobia. These should be ruled out by history and toxicology screen.

B. Obsessive Compulsive Disorder, Specific Phobia, Hypochondriasis, or Anorexia Nervosa

Many psychiatric disorders present with marked anxiety, and the diagnosis of Social Phobia should be made only if the anxiety is unrelated to other disorder. For example, Social Phobia should not be diagnosed in Panic Disorder if the patient has social restriction and excessive anxiety about having an attack.

C. Anxiety Disorder Due to a General Medical Condition

Hyperthyroidism and other medical conditions may produce significant anxiety, and should be ruled out. (See page 125)

D. Mood and Psychotic Disorders

1. Excessive social worry and anxiety can occurs in many mood and psychotic disorders
2. If anxiety occurs only during the course of the mood or psychotic disorder, then Social Phobia should not be diagnosed.

V. Treatment of Social Phobia

A. Social phobia with performance anxiety responds well to beta blockers such as propranolol. The dosage can be very low such as 10-20 mg qid, yet still effective. It may also be used on a prn basis; 20-40 mg given 30-60 minutes prior to the anxiety provoking event.

B. Benzodiazepines, such as clonazepam 0.5 - 2 mg per day and selective serotonin reuptake inhibitors such as Paroxetine 20 mg per day are also effective.
C. Cognitive/behavioral therapies effective, and should focus on cognitive retraining, desensitization, and relaxation techniques.
D. Combined pharmacotherapy and cognitive or behavioral therapies are often the most effective treatment.
E. Insight oriented psychotherapy alone is often ineffective.

Specific Phobia

I. DSM-IV Diagnostic Criteria
A. Marked and persistent fear that is excessive or unreasonable that is caused by the presence or anticipation of a specific object or situation.
B. Exposure to the feared stimulus provokes an immediate anxiety response which may take the form of a panic attack.
C. Recognition by the patient that the fear is excessive or unreasonable.
D. The phobic situation is avoided or endured with intense anxiety.
E. The avoidance, anxious anticipation, or distress in the feared situations interferes with functioning or produces marked distress.
F. In individuals under age 18, the duration must be at least six months.
G. Symptoms are not caused by another mental disorder (e.g., fear of dirt in someone with OCD).
H. Specify Type of Phobias
1. Animal (e.g., dogs)
2. Natural Environmental (e.g., heights, storms, water)
3. Blood-Injection-Injury
4. Situational (e.g., airplanes, elevators, enclosed places)
5. Other (e.g., situations that may lead to choking, vomiting)

II. Clinical Features of Specific Phobia
A. Specific phobias may result in significant restriction of life activities or occupation.
B. Vasovagal fainting is seen in 75% of patients with blood-injection-injury phobias.
C. Specific phobias often occur along with other anxiety disorders.
D. Fear of animals and other objects is common in childhood, and specific phobia is not diagnosed unless the fear leads to significant impairment, such as unwillingness to go to school.
E. Most childhood phobias are self limited and do not require treatment. Phobias that continue into adulthood rarely remit.

III. Epidemiology of Specific Phobia

A. Lifetime prevalence of phobias is 10%.

B. Most do not cause clinically significant impairment or distress.

C. Age of onset is variable and females with the disorder far outnumber males with the disorder.

IV. Differential Diagnosis of Specific Phobia

A. Substance Induced Anxiety disorder: Substances such as caffeine, amphetamines, and cocaine can mimic phobic symptoms. Alcohol or benzodiazepine withdrawal can also mimic phobic symptoms. These disorders should be ruled out with history and toxicology screen.

B. Panic Disorder, Obsessive Compulsive Disorder, Social Phobia, Hypochondriasis or Anorexia Nervosa

Many psychiatric disorders present with marked anxiety, and the diagnosis of Specific Phobia should be made only if the anxiety is unrelated to another disorder. For example, Specific Phobia should not be diagnosed in Panic Disorder if the patient has excessive anxiety about having a panic attack.

C. Anxiety Disorder Due to a General Medical Condition: Hyperthyroidism and other medical conditions may produce significant anxiety and should be ruled out. (See page 125)

D. Mood and Psychotic Disorders

Excessive worry and anxiety occurs in many mood and psychotic disorders. If anxiety occurs only during the course of the mood or psychotic disorder, then specific phobia should not be diagnosed.

V. Treatment of Specific Phobia

A. The primary treatment is behavioral therapy. Systemic desensitization consists of gradually increasing exposure to the feared situation, combined with a relaxation technique such as deep breathing.

B. Beta blockers may also be useful as they are in social phobia prior to confronting the specific feared situation.

C. Insight-oriented psychotherapy alone has not proven effective, despite the fact that psychological issues are often related to the specific phobia.

Post-Traumatic Stress Disorder

I. DSM-IV Diagnostic Criteria

- **A.** The disorder occurs after an individual is exposed to a traumatic event that is outside the realm of normal human experience (combat, natural disaster, physical assault, accident).
- **B.** The patient persistently reexperiences the event through intrusive recollection or nightmares, reliving of the experience (flashbacks), or intense distress when exposed to reminders of the event.
- **C.** Persistent avoidance of the event and emotional numbing may be present. The patient may have feelings of detachment, anhedonia, amnesia, restricted affect or active avoidance of thoughts or activities that may be reminders of the trauma (three required).
- **D.** A general state of increased arousal persists after the traumatic event, which is characterized by poor concentration, hypervigilance, exaggerated startle response, insomnia, or irritability (two required).
- **E.** Symptoms present for at least one month
- **F.** Symptoms cause significant distress or impaired occupational or social functioning

II. Clinical Features of Post-Traumatic Stress Disorder (PTSD)

- **A.** Survivor guilt may be experienced if trauma was associated with a loss of life.
- **B.** Personality change, poor impulse control, aggression, dissociative symptoms and perceptual disturbances may occur.
- **C.** Risk of depression, substance abuse, other anxiety disorders, somatization disorder, and suicide is increased.

III. Epidemiology of Post-Traumatic Stress Disorder

- **A.** Lifetime prevalence is 1-3% of the general population and is highest in young adults.
- **B.** Combat soldiers and assault victims may have prevalence rates as high as 60%.
- **C.** Poor coping abilities and genetic vulnerability may be predisposing factors to PTSD.

IV. Classification of Post-Traumatic Stress Disorder

- **A. Acute:** Symptoms have been present for less than 3 months
- **B. Chronic:** Symptoms have been present for greater than 3 months
- **C. With Delayed Onset:** Symptoms begin 6 months after stressor

V. Differential Diagnosis of Post-Traumatic Stress Disorder

- **A. Depression** is associated with insomnia, anhedonia, poor concentration, and feelings of detachment. A stressful event may be associated with the onset of depression. Trauma specific symptoms such as nightmares and flash backs are not commonly seen with depression.
- **B. Obsessive Compulsive Disorder:** OCD is associated with recurrent intrusive ideas. They lack, however, a relationship to a specific trauma event and are not usually recollections of past events.
- **C. Malingering:** PTSD may be a compensable illness, and the presence of primary financial gain should be considered when evaluating patients.
- **D. Anxiety Disorders:** Other anxiety disorders can exhibit symptoms of increased arousal, numbing and avoidance. Symptoms, however, often precede traumatic event.
- **E. Borderline Personality Disorders:** Borderline personality disorder can be associated with anhedonia, poor concentration, past history of emotional trauma and dissociative states similar to flashbacks. Other features of BPD such as avoidance of abandonment, identity disturbance, and impulsivity can help in distinguishing BPD from PTSD.

VI. Treatment of Post-Traumatic Stress Disorder

- **A.** Antidepressants (imipramine, amitriptyline, and SSRIs) are useful especially for symptoms of increased arousal, intrusive thoughts, and coexisting depression.
- **B.** Propranolol, lithium, anticonvulsants and buspirone may have efficacy and should be considered if there is no response to antidepressants.
- **C.** Although PTSD is usually associated with prominent anxiety, benzodiazepines have not been effective.
- **D.** Psychotherapy or behavioral therapy along with education about the disorder are necessary adjuncts to pharmacological treatment.
- **E.** Support groups and family therapy are also useful.

Acute Stress Disorder

This is a new diagnostic category that describes acute reactions occurring after exposure to extreme stress.

I. DSM-IV Criteria

Criteria for Acute Stress Disorder are similar to criteria A, B, C, and D of PTSD with the addition of the following:

1. Symptoms occur within one month of a stressor and last between 2 days and 4 weeks.

2. The individual has 3 or more of the following dissociative symptoms:
   - **a.** Subjective sense of numbing, detachment or absence of emotional responsiveness
   - **b.** Reduction in awareness of surroundings
   - **c.** Derealization
   - **d.** Depersonalization
   - **e.** Dissociative amnesia

II. Course and Prognosis of Acute Stress Disorder

- **A.** Because this is a new diagnostic category there is little information available.
- **B.** The presence of acute stress disorder may precede PTSD. The clinical approach is similar to PTSD.

III. Treatment of Acute Stress Disorder

- **A.** Treatment of Acute stress disorder focuses on providing supportive psychotherapy along with education about the disorder.
- **B.** Temporary use of sedative hypnotics are indicated for treatment of insomnia and symptoms of increased arousal. If the condition does not resolve, treatment is similar to post-traumatic stress disorder.

Personality Disorders

General Characteristics of a Personality Disorders

I. Personality Traits consist of enduring patterns of perceiving, relating to, and thinking about the environment, other people and oneself.

II. A Personality Disorder is diagnosed when personality traits become inflexible, pervasive and maladaptive to the point where they cause significant social or occupational dysfunction, or subjective distress.

III. Personality patterns must be stable and date back to adolescence or early adulthood. Therefore, personality disorders are not generally diagnosed in children.

IV. Patterns of behavior and perception cannot be due to stress, another mental disorder, drug or medication effect, or due to a medical condition.

V. Personality disorders are commonly seen in medical and psychiatric practice.

VI. In general, patients have little or no insight into their disorder.

Paranoid Personality Disorder

I. DSM-IV Diagnostic Criteria

A. A pervasive distrust and suspiciousness of others is present without justification beginning by early adulthood and indicated by at least four of the following:

1. The patient suspects others are exploiting, harming, or deceiving him.

2. The patient doubts the loyalty or trustworthiness of others.

3. The patient fears that information given to others will be used maliciously against him.

4. Benign remarks by others or benign events are interpreted as having demeaning or threatening meanings.

5. The patient persistently bears grudges.

6. The patient perceives attacks that are not apparent to others, and is quick to react angrily or to counterattack.

7. The patient repeatedly questions the fidelity of his spouse or sexual partner.

II. Clinical Features of Paranoid Personality Disorder

- **A.** The patient is often hypervigilant, and constantly looking for data to support his paranoia.
- **B.** Patients are often argumentative and hostile.
- **C.** Patients have a high need for control and autonomy in relationships to avoid betrayal and the need to trust others.
- **D.** Pathological jealousy is common.
- **E.** Patients are quick to counterattack and are frequently involved in legal disputes.

III. Epidemiology of Paranoid Personality Disorder

- **A.** These patients rarely seek treatment.
- **B.** The disorder is more common in men than women.
- **C.** The disorder is more common in relatives of schizophrenics.
- **D.** The disorder may be a premorbid condition in schizophrenia.

IV. Differential Diagnosis of Paranoid Personality Disorder

- **A. Delusional Disorder:** Fixed delusions are not seen in personality disorders.
- **B. Paranoid Schizophrenia:** Hallucinations and formal thought disorder are not seen in personality disorder.
- **C. Personality Change Due to a General Medical Condition and Substance-Related Disorder:** Acute symptoms are temporally related to a medication, drugs or a medical condition. The long standing patterns of behavior required for a personality disorder are not present.

V. Treatment of Paranoid Personality Disorder

- **A.** Psychotherapy is the treatment of choice, but it is often difficult to establish and maintain the trust of patients because they have great difficulty tolerating intimacy. Psychotherapeutic relationships are anxiety-provoking for these patients.
- **B.** Symptoms of anxiety and agitation in response to a sense of persecution may be severe enough to warrant treatment with anti-anxiety agents.
- **C.** Low dose antipsychotics for delusional accusations and agitation may be helpful.

Schizoid Personality Disorder

I. DSM-IV Diagnostic Criteria

A pervasive pattern of social detachment with a restricted affect, beginning by early adulthood and indicated by at least four of the following:

1. The patient neither desires nor enjoys close relationships, including family relationship.
2. The patient chooses solitary activities.
3. The patient has little interest in having sexual experiences.
4. The patient takes pleasure in few activities.
5. The patient has no close friends or confidants except first-degree relatives
6. The patient is indifferent to the praise or criticism of others.
7. The patient displays emotional detachment or diminished affective responsiveness.

II. Clinical Features of Schizoid Personality Disorder

- **A.** The patient appears cold and aloof; and is uninvolved in the everyday concerns of others.
- **B.** The patient is subjectively and objectively emotionally blunted.
- **C.** Generally these patients do not marry unless pursued aggressively by another person.
- **D.** These patients are able to work only if their work allows for social isolation.

III. Epidemiology of Schizoid Personality Disorder

- **A.** Schizoid Personality Disorder is rare in the clinical setting.
- **B.** Thought to be more common in men than women.
- **C.** The disorder may be a premorbid condition in schizophrenia.
- **D.** It is more common in first-degree relatives of schizophrenics.

IV. Differential Diagnosis of Schizoid Personality Disorder

- **A. Schizophrenia:** Hallucinations and formal thought disorder are not seen in personality disorders. Patients with Schizoid Personality Disorder may have good work histories, whereas schizophrenic patients usually have poor work histories.
- **B. Schizotypal Personality Disorder:** Eccentricities and oddities of perception, behavior and speech are not seen in schizoid personality disorder.
- **C. Avoidant Personality Disorder:** Social isolation is subjectively unpleasant (ego-dystonic) for avoidant patients. Unlike Schizoid patients, Avoidant patients are hypersensitive to the thoughts and feelings of others.

D. Paranoid Personality Disorder: Although also frequently alone and emotionally constricted, paranoid patients are able to express strong emotion when feeling persecuted.

E. Personality Change Due to a General Medical Condition and Substance-Related Disorder: Acute symptoms are temporally related to a medication, drugs or a medical condition. The long standing patterns of behavior required for a personality disorder are not present.

V. Treatment of Schizoid Personality Disorder

A. Individual psychotherapy is the treatment of choice.

B. The patients may enjoy group therapy, but others will find patient's silence uncomfortable.

C. No consistent pharmacotherapeutic interventions are effective. Antidepressants, antipsychotics and psychostimulants have been used if symptoms warrant intervention.

Schizotypal Personality Disorder

I. DSM-IV Diagnostic Criteria

A pervasive pattern of interpersonal deficits marked by discomfort with and reduced capacity for close relationships as well as perceptual distortions and eccentricities of behavior, beginning by early adulthood. At least five of the following should be present:

1. Ideas of reference: Interpreting unrelated events as having direct reference to the patient such as the television is talking directly to them.

2. Odd beliefs or magical thinking inconsistent with cultural norms (e.g., superstitiousness, belief in clairvoyance, telepathy or "sixth sense").

3. Unusual perceptual experiences, including bodily illusions

4. Odd thinking and speech (e.g., vague, circumstantial, metaphorical, over-elaborate, or stereotyped thinking)

5. Suspiciousness or paranoid ideation

6. Inappropriate or constricted affect

7. Behavior or appearance that is odd, eccentric or peculiar.

8. Lack of close friends other than first-degree relatives

9. Excessive social anxiety that does not diminish with familiarity.

II. Clinical Features of Schizotypal Personality Disorder

A. These patients often display peculiarities in thinking, behavior and communication

B. Discomfort in social situations, and inappropriate behavior may occur.

C. Magical thinking, belief in "extra sensory perception", illusions and derealization are common.
D. Familiarity does not decrease social anxiety since it is based on paranoid concerns and not self-consciousness.
E. The patient may have a vivid fantasy life with imaginary relationships.
F. Speech may be idiosyncratic such as unusual use of phrasing or terminology.

III. Epidemiology of Schizotypal Personality Disorder

A. These patients may seek treatment for anxiety or depression.
B. Schizotypal personality disorder may be a pre-morbid condition in schizophrenia.
C. This disorder is more common in relatives of Schizophrenics.

IV. Differential Diagnosis of Schizotypal Personality Disorder

A. Schizoid and Avoidant Personality Disorder: Schizoid and avoidant patients will not display the oddities of behavior, perception and communication of Schizotypal patients.
B. Schizophrenia: No formal thought disorder is present in personality disorders. When psychosis is present in Schizotypal patients, it is of brief duration.
C. Paranoid Personality Disorder: Patients with Paranoid personality disorder will not display the oddities of behavior, perception and communication of Schizotypal patients. Unlike Schizotypals, Paranoid patients can be very verbally aggressive and do not avoid conflict.
D. Personality Change Due to a General Medical Condition and Substance-Related Disorder: Acute symptoms are temporally related to a medication, drugs or a medical condition. The long standing patterns of behavior required for a personality disorder are not present.

V. Treatment of Schizotypical Disorder

A. Psychotherapy is the treatment of choice, but the therapeutic alliance can be difficult to initiate and maintain.
B. Antipsychotics may be helpful in dealing with low-grade psychotic symptoms of paranoid or delusions if they interfere with the patient's functioning.
C. Antidepressants may be useful if the patient also meets criteria for a mood disorder.

Antisocial Personality Disorder

I. DSM-IV Diagnostic Criteria

A. Since age 15 years, the patient continues to display disregard for, and violation of, the rights of others, indicated by at least three of the following:

1. Failure to conform to social norms by repeatedly engaging in unlawful activity.

2. Deceitfulness: Repeated lying, use of aliases, or "conning" others for personal profit or pleasure.

3. Impulsivity or failure to plan ahead.

4. Irritability and aggressiveness, as indicated by repeated physical fights or assaults.

5. Reckless disregard for the safety of self or others.

6. Consistent irresponsibility: Repeated failure to sustain consistent work behavior or honor financial obligations.

7. Lack of remorse for any of the above behavior

B. A history of some symptoms of conduct disorder before age 15 years as indicated by:

1. Aggression to people and animals.

2. Destruction of property.

3. Deceitfulness or theft.

4. Serious violation of rules.

II. Clinical Features of Antisocial Personality Disorder

A. Interactions with others are typically exploitative or abusive.

B. Lying, stealing, fighting, fraud, physical abuse, substance abuse, drunk driving are common.

C. Patients may be arrogant, but they are also capable of great superficial charm.

D. These patients have no capacity for empathy.

III. Epidemiology of Antisocial Personality Disorder

A. The male-to-female ratio is 3:1.

B. More common in first-degree relatives of those with the disorder.

IV. Differential Diagnosis of Antisocial Personality Disorder

A. Adult Antisocial Behavior: This diagnosis is limited to the presence of illegal behavior only and lacks the pervasive, long term patterns required for a personality disorder.

B. Substance-Related Disorder: Substance abuse is common in Antisocial Personality Disorder and crimes may be committed to obtain drugs, or to obtain money for drugs. Consider both diagnoses if chronic drug use and chronic antisocial acts are present.

C. Narcissistic Personality Disorder: Narcissistic patients also lack empathy and are exploitative, but they are not as aggressive or deceitful as Antisocial patients.

D. Borderline Personality Disorder: These patients are also impulsive and manipulative, but they are more emotionally unstable and less aggressive. The manipulativeness of Borderline patients is aimed at getting emotional gratification rather than aimed at financial or power motivations.

V. Treatment of Antisocial Personality Disorders

A. These patients will try to destroy or avoid the therapeutic relationship.

B. Inpatient self-help groups appear to be the most useful because the patient is not allowed to leave and enhanced peer interaction minimizes authority issues.

C. The use of psychotropic medication has been described with mixed results. Consider using them in patients whose symptoms interfere with functioning or who meet criteria for an Axis I psychiatric disorder.

1. Anticonvulsants, lithium, and beta-blockers have been used for impulse control problems including rage reactions.

2. Antidepressants can be helpful if criteria for Major Depressive Disorder or an anxiety disorder are present.

D. Use of medications may be limited by ongoing substance abuse in these patients. (e.g.,Benzodiazepines should be avoided for treatment of anxiety in these patients due to their addiction and abuse potential.)

Borderline Personality Disorder

I. DSM-IV Diagnostic Criteria

A pervasive pattern of unstable interpersonal relationships, unstable self-image, unstable affects, and poor impulse control beginning by early adulthood and indicated by at least five of the following:

1. Frantic efforts to avoid real or imagined abandonment.

2. Unstable and intense interpersonal relationships, alternating between extremes of idealization and devaluation.

3. Identity disturbance: unstable self-image or sense of self

4. Impulsivity in at least two areas that are potentially self-damaging (e.g., spending, promiscuity, substance abuse, reckless driving, binge eating).

5. Recurrent suicidal behavior, gestures or threats; or self-mutilating behavior

6. Affective instability (e.g., sudden intense dysphoria, irritability or anxiety of short duration).

7. Chronic feelings of emptiness

8. Inappropriate, intense anger or difficulty controlling anger
9. Transient, stress-related paranoid ideation or severe dissociative symptoms.

II. Clinical Features of Borderline Personality Disorder

- **A.** Clinical presentation is highly variable.
- **B.** Chronic dysphoria is common.
- **C.** Desperate dependence on others is caused by inability to tolerate being alone.
- **D.** Chaotic interpersonal relationships are characteristic.
- **E.** Self-destructive or self-mutilatory behavior is common.
- **F.** Childhood history of abuse or parental neglect is common.

III. Epidemiology of Borderline Personality Disorder

- **A.** The female-male ratio is 2:1.
- **B.** Five times more common in first-degree relatives.
- **C.** Prevalence is 1-2%, but occurs in 30-60% of psychiatric patients.

IV. Differential Diagnosis of Borderline Personality Disorder

- **A. Adolescence:** Identity disturbance and emotional lability of normal adolescence may have the characteristics of borderline personality disorder; however, a persistent pattern is not present.
- **B. Histrionic Personality Disorder:** These patients are also manipulative and attention seeking, but they do not display self-destructiveness and rage. Psychosis and dissociation are not typically seen in Histrionic patients.
- **C. Dependent Personality Disorder:** When faced with abandonment, Dependent patients will increase their submissive behavior rather than display rage as do borderline patients.
- **D. Personality Change Due to a General Medical Condition and Substance-Related Disorder:** Acute symptoms are temporally related to medications drugs or a medical condition.

V. Treatment of Borderline Personality Disorder

- **A.** Psychotherapy is the treatment of choice (individual and/or group therapy).
- **B.** Patients frequently try to recreate their personal chaos in treatment by displaying acting-out behavior, resistance to treatment, lability of mood and affect, and regression (return to a more primitive behavior in response to a stressor).
- **C.** Suicide threats and attempts are common.
- **D.** Pharmacotherapy is frequently used for co-morbid Axis I psychiatric disorders such as Mood disorders, Eating disorders, Anxiety disorders

and Substance-related disorders. Drug treatment should focus on the underlying disorder.

E. Use of medications may be complicated by patient's suicide threats/attempts by overdose.

Histrionic Personality Disorder

I. DSM-IV Diagnostic Criteria

A. A pervasive pattern of excessive emotionality and attention seeking, beginning by early adulthood, as indicated by five or more of the following:

1. The patient is not comfortable unless he is the center of attention.
2. The patient is often inappropriately sexually seductive or provocative with others.
3. The patient displays rapidly shifting and shallow expression of emotions.
4. The patient consistently uses physical appearance to attract attention.
5. Speech is excessively impressionistic and lacking in detail.
6. Dramatic, theatrical and exaggerated expression of emotion is used.
7. The patient is easily influenced by others or by circumstances.
8. Relationships are considered to be more intimate than they are in reality.

II. Clinical Features of Histrionic Personality Disorder

A. The patient is bored with routine, and dislikes delays in gratification.
B. The patient begins projects, but does not finish them (including relationships).
C. Dramatic emotional "performances" appear to lack sincerity
D. The patient attempts to control relationships with seduction, manipulation, or dependency.
E. The patient may resort to suicidal gestures and threats to get attention.

III. Epidemiology of Histrionic Personality Disorder

A. Histrionic Personality Disorder is much more common in women than men.
B. These patients have higher rates of depression, somatization and conversion.

IV. Differential Diagnosis of Histrionic Personality Disorder

A. Borderline Personality Disorder

1. Patients with Borderline Personality can also be sensation-seeking, impulsive, superficially charming and manipulative.
2. Histrionic patients lack identity disturbance, transient psychosis and dissociation seen in Borderline patients.
3. Some patients meet criteria for both diagnoses.

B. Antisocial Personality Disorder

1. Antisocial patients are also sensation-seeking, impulsive, superficially charming and manipulative.
2. Histrionic patients are dramatic and theatrical but typically lack histories of antisocial behavior.

C. Narcissistic Personality Disorder

1. Narcissists also seek constant attention, but it must be positive in order to confirm grandiosity and superiority.
2. Histrionics are less selective and will appear weak and dependent to get attention.

D. Personality Change Due to a General Medical Condition and Substance-Related Disorder: Acute symptoms are temporally related to medication, drugs or a medical condition.

V. Treatment of Histrionic Personality Disorder

A. Insight-oriented psychotherapy is the treatment of choice.

B. Keeping them in therapy can be challenging since these patients dislike routine.

C. Use antidepressants if criteria for Major Depressive Disorder are present.

Narcissistic Personality Disorder

I. DSM-IV Diagnostic Criteria

A pervasive pattern of grandiosity (in fantasy or behavior), need for admiration, and lack of empathy. The disorder begins by early adulthood and is indicated by at least five of the following:

1. An exaggerated sense of self-importance
2. Preoccupation with fantasies of unlimited success, power, brilliance, beauty, or ideal love
3. Believes he is "special" and can only be understood by, or should associate with, other special or high-status people (or institutions).
4. Requires excessive admiration
5. Has a sense of entitlement.
6. Takes advantage of others to achieve his own ends.
7. Lacks empathy

8. The patient is often envious of others or believes that others are envious of him.
9. Shows arrogant, haughty behaviors or attitudes.

II. Clinical Features of Narcissistic Personality Disorder

A. Patients with Narcissistic Personality Disorder exaggerate their achievements and talents, and are surprised when they do not receive the recognition they expect.

B. Their inflated self-evaluation implies a thinly veiled devaluation of others and their accomplishments.

C. Narcissistic patients only pursue relationships that they perceive will benefit them in some way.

D. Interpersonally, they are very entitled, expecting others to meet their needs immediately and can become quite indignant if this does not happen.

E. These patients are self-absorbed and unable to respond to the needs of others.

F. Any perception of criticism is poorly tolerated and patients can react with rage.

G. These patients are very prone to envy anyone who possesses knowledge, skill or belongings that they do not possess.

H. Underlying this behavior is a person with very fragile self-esteem.

III. Epidemiology of Narcissistic Personality Disorder

A. The disorder is more common in men than women.

B. Studies have suggested a steady increase in the incidence of Narcissistic Personality Disorder.

IV. Differential Diagnosis of Narcissistic Personality Disorder

A. Histrionic Personality Disorder: Histrionic patients are also attention seeking, but this attention does not have to be admiring. They are more highly emotional and seductive compared to Narcissists.

B. Borderline Personality Disorder: These patients also tend to idealize and devalue others, but Narcissistic patients lack the unstable identity, self-destructive behavior and abandonment fears that characterize Borderline patients.

C. Antisocial Personality Disorder: Interpersonal exploitation, superficial charm, and lack of empathy can be seen in both Antisocial Personality Disorder and Narcissistic Personality Disorder. However, Antisocial patients do not require constant admiration nor display the envy seen in Narcissistic patients. A history of criminal behavior is not typical of Narcissism.

D. Personality Change Due to a General Medical Condition and Substance-Related Disorder: All symptoms are temporally related to medication, drugs or a medical condition.

V. Treatment of Narcissistic Personality Disorder

A. Psychotherapy is the treatment of choice but the therapeutic relationship can be difficult since envy often becomes an issue.
B. Coexisting substance abuse may complicate treatment.
C. Since these patients are prone to Major Depressive Disorder, antidepressants can be used in addition to therapy if the patient meets the diagnostic criteria for a mood disorder.

Avoidant Personality Disorder

I. DSM-IV Diagnostic Criteria

A pervasive pattern of social inhibition, feelings of inadequacy and hypersensitivity, beginning by early adulthood, and indicated by at least four of the following:

1. The patient avoids occupational activities with significant interpersonal contact due to fear of criticism, disapproval or rejection.
2. Unwilling to get involved with people unless certain of being liked.
3. Restrained in intimate relationships due to fear of being shamed or ridiculed.
4. Preoccupied with being criticized or rejected in social situations.
5. Inhibited in new interpersonal situations due to feelings of inadequacy.
6. The patient views himself as socially inept, unappealing or inferior to others.
7. Unusually reluctant to take personal risks or to engage in new activities because they may be embarrassing.

II. Clinical Features of Avoidant Personality Disorder

A. Shy, quiet, isolative
B. Anticipates unwarranted rejection before it happens.
C. Avoids opportunities to supervise others at work.
D. Devastated by minor comments they perceive to be critical.
E. Despite self-imposed restrictions, they long to be accepted and more social.

III. Epidemiology of Avoidant Personality Disorder

A. The male-to-female ratio is 1:1.

B. Although adults with avoidant personality disorder were frequently shy as children, childhood shyness is not a predisposing factor.

IV. Differential Diagnosis of Avoidant Personality Disorder

A. Social Phobia, Generalized Type: Shares many features; patients may meet criteria for both. May only be differentiated by life-long pattern seen in patients with the personality disorder.

B. Dependent Personality Disorder: These patients are also hypersensitive to criticism and crave acceptance, but will risk humiliation and rejection in order to get dependent needs met. Patients may meet criteria for both disorders.

C. Schizoid Personality Disorder

1. These patients also avoid interactions with others and are anxious in social settings, however schizoid patients do not fear criticism and rejection.

2. Social isolation is felt by avoidant patients to be abnormal.

D. Panic Disorder with Agoraphobia

1. Avoidance occurs after panic attacks begin and is aimed at avoiding another panic attack.

2. Lacks the pervasive, stable pattern of social isolation seen in Avoidant Personality Disorder.

V. Treatment of Avoidant Personality Disorder

A. Individual psychotherapy, group psychotherapy and behavioral techniques may all be useful. Group may assist in dealing with social anxiety. Behavioral techniques such as assertiveness training and systematic desensitization may help overcoming anxiety and shyness.

B. Beta-blockers can be useful for situational anxiety.

C. Patients are prone to mood and anxiety disorders, and these disorders should be treated with antidepressants or anxiolytics if the diagnostic criteria are present.

Dependent Personality Disorder

I. DSM-IV Diagnostic Criteria

A pervasive and excessive need to be cared for. This need leads to submissive, clinging behavior, and fears of separation beginning by early adulthood and indicated by at least five of the following:

1. Difficulty making everyday decisions without excessive advice and reassurance

2. Needs others to assume responsibility for major areas of his life

3. Difficulty expressing disagreement with others and unrealistically fears loss of support or approval if he disagrees.
4. Difficulty initiating projects or doing things on his or her own, due to a lack of self-confidence in judgment or abilities.
5. Goes to excessive lengths to obtain nurturance and support, to the point of volunteering to do things that are unpleasant.
6. Uncomfortable or helpless when alone due to exaggerated fears of being unable to care for himself.
7. Urgently seeks another source of care and support when a close relationship ends.
8. Unrealistically preoccupied with fears of being left to take care of himself.

II. Clinical Features of Dependent Personality Disorders

- **A.** Patients will suffer great discomfort in order to perpetuate the care taking relationship.
- **B.** Social interaction is usually limited to the caretaker network.
- **C.** These patients may function at work if no initiative is required.

III. Epidemiology of Dependent Personality Disorders

- **A.** Women are affected slightly more than men.
- **B.** Childhood illness or separation anxiety disorder of childhood may be a premorbid condition.

IV. Differential Diagnosis of Dependent Personality Disorders

- **A. Avoidant Personality Disorder:** Avoidant patients are more focused on avoiding shame and rejection rather than getting needs met. Some may meet criteria for both disorders.
- **B. Borderline Personality Disorder:** Borderline patients react with rage and emptiness when feeling abandoned. Dependent patients react with more submissive behavior when feeling abandoned. Self-destructive behavior and unstable relationships are unique to Borderline patients.
- **C. Histrionic Personality Disorder**
  1. These patients are also needy and clinging, and they have a strong desire for approval, but these patients actively pursue almost any kind of attention.
  2. They tend to be very flamboyant, unlike dependent patients.
- **D. Personality Change Due to a General Medical Condition and Substance-Related Disorder:** Acute symptoms are temporally related to a medication, drugs or a medical condition. The long standing patterns of behavior required for a personality disorder are not present.

V. Treatment of Dependent Personality Disorders

A. Insight-oriented psychotherapy, group, and behavioral therapies such as assertiveness and social skills training have all been used with success. Family therapy may also be helpful in supporting new needs of the dependent patient in treatment.

B. Dependent patients are at increased risk for mood disorders and anxiety disorders. Appropriate pharmacological interventions may be used if the patient has these disorders.

Obsessive-Compulsive Personality Disorder

I. DSM-IV Diagnostic Criteria

A pervasive pattern of preoccupation with orderliness, perfectionism and control, at the expense of flexibility, openness, and efficiency, beginning by early adulthood and indicated by at least four of the following:

1. Preoccupied with details, rules, lists, organization or schedules to the extent that the major point of the activity is lost.

2. Perfectionism interferes with task completion.

3. Excessively devoted to work and productivity to the exclusion of leisure activities and friendships.

4. Overconscientious, scrupulous and inflexible about morality, ethics, or values (not accounted for by cultural or religion)

5. Unable to discard worn-out or worthless objects, even if they have no sentimental value.

6. Reluctant to delegate tasks to others.

7. Miserly spending style toward both self and others

8. Rigidity and stubbornness

II. Clinical Features of Obsessive-Compulsive Personality Disorder

A. Obsession with detail can paralyze decision making.

B. Tasks may be difficult to complete.

C. These patients prefer logic and intellect to feelings

D. These patients are not openly affectionate

E. These patients are often very “frugal” in regard to financial matters.

III. Epidemiology of Obsessive-Compulsive Personality Disorder

A. Male-to-female ratio is 2:1.

B. Obsessive-Compulsive Personality Disorder is more frequent in first degree relatives.

IV. Differential Diagnosis of Obsessive-Compulsive Personality Disorder

A. Obsessive-Compulsive Disorder (OCD): Obsessions and compulsions are not present in Obsessive-compulsive Personality Disorder. Most patients with OCD do not meet criteria for the personality disorder, although the two conditions can coexist.

B. Personality Change Due to a General Medical Condition and Substance-Related Disorder: Acute symptoms are temporally related to a medication, drugs or a medical condition. The long standing patterns of behavior required for a personality disorder are not present.

V. Treatment of Obsessive-Compulsive Personality Disorder

A. Long-term, individual therapy can be helpful.

B. Therapy can be difficult due to the patient's limited social skills and insight, and due to their rigidity.

C. No specific pharmacological treatments are effective unless the patient meets criteria for a mood or anxiety disorder.

Somatoform and Factitious Disorders

Somatization Disorder

I. DSM IV Criteria

A. Many physical complaints resulting in treatment being sought or significant functional impairment. Onset is before age 30.

B. Physical Complaints

1. history of pain related to at least 4 sites or functions

2. 2 GI symptoms

3. 1 sexual symptom

4. 1 pseudoneurological symptom, one suggestive of a neurological condition

C. Symptoms can not be explained by organic etiology OR they are in excess of what is expected from the medical evaluation.

D. Symptoms are not intentionally produced.

II. Clinical Features of Somatization Disorder

A. Somatization Disorder is chronic and results in the frequent seeking of medical treatment or multiple concurrent treatments.

B. Patients undergo multiple procedures, surgeries, and hospitalizations.

C. Often begins during adolescence.

D. Frequently encountered symptoms include nausea, vomiting, extremity pain, shortness of breath, and pregnancy or menstruation associated complaints.

E. Frequency and severity of symptoms may vary with level of stress.

F. Two-thirds of patients have coexisting psychiatric diagnoses.

G. Mood and anxiety disorders and Substance-Related Disorders are common in Somatization Disorder.

III. Epidemiology of Somatization Disorder

A. Lifetime prevalence is 0.1 to 0.5%.

B. Five to twenty times more prevalent in women

C. The frequency of Somatization Disorder is inversely related to social class

D. 15% of patients have a positive family history, and the concordance rate is higher in monozygotic twins.

IV. Differential Diagnosis of Somatization Disorder

- **A.** Medical conditions that present varied and transient symptoms such as systemic lupus erythematosus, HIV or multiple sclerosis must be ruled out.
- **B.** Prominent somatic complaints can be associated with depression, anxiety and schizophrenia.
- **C. Malingering** features external motives behind intentional production of symptoms.
- **D. Factitious Disorder**: In factitious disorder symptoms are intentionally produced to assume the sick role.

V. Treatment of Somatization Disorder

- **A.** The physical complaints that occur in Somatization Disorder are an expression of emotional issues.
- **B.** Psychotherapy is beneficial to help the patient find more appropriate ways of expression.
- **C.** The patient should have a primary care physician and should be seen at regular intervals (monthly).

Conversion Disorder

I. DSM IV Criteria

- **A.** The patient complains of symptoms or deficits affecting voluntary muscles or deficits of sensory function suggesting a neurological or medical condition.
- **B.** Temporal relation of symptoms to a stressful events suggests association of psychological factors
- **C.** Symptoms are not intentionally produced.
- **D.** Symptoms are not explained by organic etiology.
- **E.** Symptoms result in a significant functional impairment
- **F.** Symptoms are not limited to pain or sexual dysfunction, and are not explained by another mental disorder.

II. Clinical Features of Conversion Disorder

- **A.** Symptoms most commonly are sensory (blindness, numbness) and motor deficits (paralysis, mutism) and pseudoseizures.
- **B.** Abnormalities usually do not have a anatomical disorder and neurological exam is normal.
- **C.** Patients often lack the characteristic normal concern about the deficit (la belle indifference).
- **D.** Can coexist with depression, anxiety disorder, and schizophrenia.

E. Conversion symptoms can temporarily remit after suggestion by the physician.

III. Epidemiology of Conversion Disorder

A. More frequent in women

B. Prevalence varies in different cultural groups, and appears to be more common in lower socioeconomic groups.

IV. Differential Diagnosis of Conversion Disorder

A. Medical conditions must be excluded.

B. Somatization Disorder begins in early life and involves multi-organ symptoms. Patients tend to be very concerned about symptoms.

C. Factitious Disorder: Symptoms are under voluntary control to assume a sick role.

D. Malingering is characterized by the presence of external motivations behind fabrication of symptoms.

V. Treatment of Conversion Disorder

A. Symptoms typically last for days to weeks and typically remit spontaneously.

B. Supportive, insight oriented or behavioral therapy can facilitate recovery.

C. Anxiolytics and relaxation may also be helpful in some cases.

Pain Disorder

I. DSM IV Criteria

A. Pain is major complaint on presentation and is sufficient to warrant evaluation.

B. Pain results in significant functional impairment.

C. Psychological factors are judged to contribute to condition.

D. Symptoms are not intentionally produced.

E. Symptoms are not accounted for by another mental disorder.

II. Clinical Features of Pain Disorder

A. Pain disorder is a chronic condition.

B. Pain site and intensity varies significantly from one patient to another.

C. Patients may have preexisting pain (such as musculoskeletal), but have psychological factors that prolong the patients symptoms.

D. Patients often have a history of frequently seeking medical attention.

E. The condition is often complicated by substance abuse, depression, and anxiety.

III. Epidemiology of Pain Disorder

- **A.** Pain disorder is more frequent in women
- **B.** Incidence peaks in fourth and fifth decade.
- **C.** More common among blue collar populations
- **D.** May have genetic risk factor.

IV. Classification of Pain Disorder

- **A.** Pain disorder associated with psychological or medical condition
- **B.** Acute: Pain disorder less than 6 months duration
- **C.** Chronic: Pain disorder greater than six months duration

V. Differential Diagnosis of Pain Disorder

- **A.** Can be difficult to distinguish organic pain. Organically based pain tends to vary and is responsive to analgesics while psychogenic pain generally is not.
- **B. Hypochondriasis** patients usually have multiple symptoms which vary in severity. Pain disorders symptoms are more stable.
- **C. Malingering:** Symptoms are fabricated for a recognizable goal.
- **D. Conversion Disorder** is generally brief compared to chronic course of pain disorder.

VI. Treatment of Pain Disorder

- **A.** Antidepressants such as amitriptyline, imipramine, and all SSRI's appear to be useful.
- **B.** Providing education about the relationship of psychological factors in subjective pain is also useful. Psychotherapy and pain management programs are useful.
- **C.** Prognosis can vary depending on secondary gain factors (financial) and coexisting substance abuse and personality disorders.

Hypochondriasis

I. DSM IV Criteria

- **A.** Preoccupation with fear of having serious disease based on misinterpretation of symptoms
- **B.** Patient is not reassured by a negative medical evaluation.
- **C.** Not related to delusions, or restricted to specific concern about appearance
- **D.** Results in significant functional impairment
- **E.** Duration is greater than 6 months.
- **F.** Not accounted for by another mental disorder

II. Clinical Features of Hypochondriasis

- **A.** Despite clinical, diagnostic or laboratory evaluation, the patient is not reassured.
- **B.** Doctor shopping is common.
- **C.** Complaints are often vague and ambiguous.
- **D.** Repeated diagnostic procedures may result in unrelated medical complications.

III. Epidemiology of Hypochondriasis

- **A.** Most frequent between age 20 to 30
- **B.** No sex predominance

IV. Classification of Hypochondriasis

Hypochondriasis "with poor insight" is present if the patient fails to recognize concern as excessive or unreasonable.

V. Differential Diagnosis of Hypochondriasis

- **A.** Major depression, Obsessive Compulsive Disorder, Generalized Anxiety Disorder, and Panic Disorder can often have prominent somatic complaints with no organic basis.
- **B.** Must rule out medical conditions that can produce varied symptoms such as AIDS, multiple sclerosis, and systemic lupus erythematosus.
- **C. Body Dysmorphic Disorder:** Concerns are limited only to physical appearance as opposed to the fear of having an illness that occurs in hypochondriasis.
- **D. Factitious Disorder and Malingering:** Hypochondriacal patients truly experience the symptoms and do not fabricate them.
- **E. Conversion Disorder:** Tends to be monosymptomatic with less concern about symptom.
- **F. Somatization Disorder:** Focus of patient is on symptoms as opposed to fear of having disease.

VI. Treatment of Hypochondriasis

- **A.** Patients are best dealt with by providing reassurance through regular physician visits.
- **B.** Group rather than individual therapy is most helpful.
- **C.** Coexisting psychiatric conditions should be treated.
- **D.** Hypochondriasis is episodic and may be related to psychosocial stressors.

Body Dysmorphic Disorder

I. DSM IV Criteria

- **A.** Preoccupation with imagined defect in appearance
- **B.** Preoccupation causes significant functional impairment.
- **C.** Preoccupation is not caused for by another mental disorder.

II. Clinical Features of Dysmorphic Disorder

- **A.** Facial features, hair, and body build are the most frequent "defective" features.
- **B.** Major Depressive Disorder, Delusional Disorder and anxiety disorders frequently coexist in Body Dysmorphic Disorder.

III. Epidemiology of Dysmorphic Disorder

- **A.** Most common between 15 and 20 years of age with women affected as much as men.
- **B.** Family history reflects a higher incidence of mood disorders and Obsessive Compulsive Disorder (OCD).

IV. Differential Diagnosis of Dysmorphic Disorder

- **A. Neurological "neglect"** is seen in parietal lobe lesions syndromes and it can be mistaken for Dysmorphic disorder. Schizophrenia, OCD, and depression all can present with an imagined defect in appearance.
- **B. Anorexia Nervosa:** Characterized by weight loss, unusual eating behaviors, and vomiting.
- **C. Gender Identity Disorder:** Characterized by discomfort with own sex and persistent identification with opposite sex.

V. Treatment Body of Dysmorphic Disorder

- **A.** All SSRI antidepressants and clomipramine may be effective.
- **B.** Treat any coexisting psychiatric conditions such as a mood disorder.
- **C.** Avoid "corrective" surgical or dental procedures that are not medically indicated

Factitious Disorder

I. DSM-IV Criteria

- **A.** Intentional production of physical or psychological symptoms
- **B.** The patients motivation is to assume the sick role.
- **C.** External motives (financial gain) are absent.

II. Clinical Features of Factitious Disorder

- **A.** Identity disturbance and prominent dependent and narcissistic traits are frequent. Patients with physical symptoms often have histories of many surgeries and hospitalizations.
- **B.** Patients are able to provide a detailed history and describe symptoms of a particular disease and may actively produce symptoms (use of drugs such as insulin, self inoculation to produce abscesses, etc).
- **C.** Common coexisting psychological symptoms include depression or factitious psychosis.
- **D.** Great effort should be made to confirm the facts presented by the patient and confirm the past medical history.
- **E.** An outside informant should be sought to provide corroborating information.

III. Epidemiology of Factitious Disorder:

- **A.** Begins in early adulthood
- **B.** More frequent in men and among health care workers.

IV. Classification of Factitious Disorder

- **A.** With predominantly psychological signs and symptoms
- **B.** With predominantly physical signs and symptoms (also known as Munchausen Syndrome)
- **C.** With combined psychological and physical symptoms

V. Differential Diagnosis:

- **A. Somatoform Disorders:** Somatoform disorder patients are less willing to undergo medical procedures such as surgery. Symptoms are not fabricated.
- **B. Malingering:** A recognizable goal for producing symptoms is present.

VI. Treatment of Factitious Disorder

- **A.** No specific treatment exists and prognosis is generally poor.
- **B.** Goal is to recognize condition early and prevent needless medical procedures. Close collaboration between medical staff and psychiatrist is recommended.

Substance Abuse Disorders

DSM-IV Diagnostic Criteria Substance-Related Disorders

I. Substance Intoxication

Intoxication is defined as a reversible syndrome that develops following ingestion of a substance. Significant maladaptive behavioral or psychological changes occur such as mood lability, impaired judgement, and impaired social or occupational functioning due to ingestion of the substance.

II. Substance Abuse

Substance use has not met criteria for dependence, but has lead to impairment or distress as indicated by at least one of the following during a 12 month period:

1. Failure to meet work, school, or home obligations.
2. Substance use during hazardous activities.
3. Recurrent substance-related legal problems.
4. Continued use despite continued social problems.

III. Substance Dependence

A. Substance dependence is diagnosed by substance use, accompanied by impairment, and the presence of 3 of the following in a 12 month period:

1. Tolerance: An increased amount of substance is required to achieve the same effect or a decreased effect results when the same amount is used.
2. Withdrawal: A characteristic withdrawal syndrome occurs, or substance is used in an effort to avoid withdrawal symptoms.
3. Substance is used in increasingly larger amounts or over a longer period of time than desired.
4. The patient attempts or desires to decrease use.
5. A significant amount of time is spent obtaining, using or recovering from the substance.
6. Substance use results in a decrease amount of time spent in social, occupational or recreational activities.
7. The patient has knowledge that the substance use is detrimental to his health, but that knowledge does not deter continued use.

IV. Substance Withdrawal

- **A.** A substance-specific syndrome develops after cessation or reduction of substance.
- **B.** Syndrome causes clinically significant distress or impairment
- **C.** Symptoms are not due to a medical condition or other mental disorder.

V. Substance Induced Disorders

- **A.** Substance induced disorders include delirium, dementia, persisting amnestic disorder, psychotic disorder, mood disorder, anxiety disorder, sexual dysfunction, and sleep disorder. (See table, page 96)
- **B.** Diagnosis requires meeting criteria for specific disorder with evidence that substance intoxication has caused the symptoms.

VI. Clinical Features of Substance Abuse

- **A.** The physician should determine amount and frequency of alcohol or other drug use in the past month, week and day. For alcohol use, determine how many days per week alcohol is consumed and the quantity consumed. Similar questions should be asked regarding other drugs.
- **B. Effects of Substance Use on the Patient's Life**
  1. **Family Manifestations:** Family dysfunction, marital problems, divorce physical abuse and violence.
  2. **Social Manifestations:** Alienation and loss of friends, gravitation toward others with similar lifestyle.
  3. **Work or School Manifestations:** Decline in work school performance, frequent job changes, frequent absences (especially on Mondays), requests for work excuses.
  4. **Legal Manifestations:** Arrests for disturbing the peace or driving while intoxicated, stealing, drug dealing, prostitution, motor vehicle accidents.
  5. **Financial Manifestations:** Irresponsible borrowing or owing money, selling of possessions.
- **C. The following questions can be helpful in assessment**
  1. Have you felt that you ought to cut down on your drinking or drug use?
  2. Have people criticized your drinking or drug use?
  3. Have you felt bad or guilty about your drinking or drug use?
  4. Have you ever had a drink or used drugs first thing in the morning to steady your nerves, get rid of a hangover or get the day started?
- **D. Psychologic or Behavioral Manifestations of Substance Abuse:** Agitation, irritability, dysphoria, mood swings, hostility, violence, difficulty coping, psychosomatic symptoms, hyperventilation, gen-

eralized anxiety, panic attacks, depression, psychosis, blackouts, tremors.

VII. Physical Examination

- **A.** Intranasal cocaine use may cause damaged nasal mucosa.
- **B.** IV drug abuse may be associated with injection site scars and bacterial endocarditis.
- **C.** Nystagmus is often seen in abusers of sedatives, hypnotics or cannabis.
- **D.** Mydriasis (dilated pupils) is often seen in persons under the influence of stimulants or hallucinogens, or in withdrawal from opiates. Miosis (pin-point pupils) is a classic sign of opioid intoxication.
- **E.** Assess patient for the withdrawal symptoms.
- **F.** Assess patient for presence of findings due to chronic alcohol use including enlarged liver, spider angioma, impaired liver function, ascites, and signs of poor nutrition.

Specific Substance-Induced Disorders

	Intoxication delirium	Withdrawal delirium	Dementia	Psychotic disorder	Mood disorder	Anxiety disorder	Sexual dysfunction	Sleep disorder
Alcohol	I	W	P	I W	I W	I W	I	I W
Amphetamine	I			I	I W	I	I	I W
Caffeine						I		I
Cannabis	I			I		I		
Cocaine	I			I	I W	I W	I	I W
Hallucinogens	I			I	I	I		
Inhalants	I		P	I	I	I		
Opioids	I			I	I		I	I W
PCP	I			I	I	I		
Sedative hypnotic	I	W	P	I W	I W	W	I	I W

I = intoxication W = withdrawal P = persisting
Amnestic Disorder can persist with alcohol and sedative/hypnotic abuse

VIII. Laboratory Evaluation of Substance Abuse

A. Impaired liver function and hematologic abnormalities are common.

B. Illicit drugs may be detected in blood and urine.

Specific Substance Related Disorders

I. Alcohol, Sedatives, Hypnotics, and Anxiolytics

A. Diagnostic Criteria for Intoxication

1. Behavioral and psychological changes

2. One or more of the following: Slurred speech, incoordination, unsteady gait, nystagmus, impaired attention or memory, stupor or coma.

B. Clinical Features of Intoxication

1. Anterograde memory disturbance is often present.

2. Behavioral disinhibition (aggression, sexual) is a common finding.

C. Addiction

1. Tolerance develops to sedative effects

2. Tolerance to brain stem depressant effects develops more slowly increasing risk for respiratory depression.

D. Withdrawal from Alcohol and other Sedatives

1. Detoxification may be necessary after prolonged use of central nervous system depressants, or when there are signs of abuse or addiction (periods of intoxication, multiple psychoactive prescriptions prior unsuccessful attempts to discontinue).

2. Sedatives associated with withdrawal syndromes include alcohol, benzodiazepines, barbiturates, and chloral hydrate.

3. Withdrawal Syndrome from Sedatives and Alcohol

a. Minor Withdrawal (stage 1): Restlessness, anxiety, insomnia, agitation and tremor; tachycardia, low-grade fever, diaphoresis and elevated blood pressure

b. Major Withdrawal (stage 2): Signs and symptoms associated with minor withdrawal plus visual or auditory hallucinations, whole-body tremor, pulse exceeding 100 per minute, diastolic pressure >100 mm Hg, pronounced diaphoresis or vomiting.

c. Delirium Tremens (stage 3): Temperature exceeding 37.8°C (100°F), disorientation to time, place and person, global confusion, inability to recognize familiar objects or persons.

d. Withdrawal Seizures: May occur 12-48 hours after the last alcoholic drink; seizures from barbiturates usually occur within 72 hours after the last use. Withdrawal from long-acting benzodiazepines may not occur for up to a week or more.

E. Detoxification of Patients Dependent on Alcohol, Sedatives or Hypnotics

1. Provide a supervised step-wise dose reduction of the drug or substitute a cross-tolerant, longer-acting substance (diazepam) that has less risk of severe withdrawal symptoms.
2. The cross-tolerated drug is given in gradually tapering doses so that the treatment relieves symptoms, and prevents stage 2 or 3 withdrawal and seizures.
3. To prevent withdrawal symptoms, the dose of medication should be reduced gradually over 1 to 2 weeks.
4. For barbiturates, a daily reduction by 10% of the total daily dose may be instituted.

II. Phencyclidine Abuse

A. Diagnostic Criteria for Intoxication

1. Behavioral changes
2. At least two of the following: Nystagmus, hypertension or tachycardia, slurred speech, ataxia, decreased pain sensitivity, muscle rigidity, seizure or coma, hyperacusis

B. Clinical Features of Phencyclidine Abuse

1. Behavior changes include violence, belligerence, hyperactivity, catatonia, psychosis, anxiety, impairment of attention or memory, difficulty communicating.
2. Perceptual disturbances include paranoia, hallucinations, confusion
3. Physical Exam: Fever, diaphoresis, mydriasis
4. Toxicology: can be detected in urine for up to 5 days after ingestion.

C. Addiction: No evidence of physical dependence occurs but tolerance to the effects can occur.

D. Withdrawal: Signs of depression can occur during withdrawal.

E. Treatment of Phencyclidine Abuse

1. Benzodiazepines are the treatment of choice (lorazepam 2-4 mg PO, IM or IV).
2. Psychosis is often refractory to treatment with antipsychotics. Haloperidol (Haldol) (2-4 mg IM/po) every 2 hours can be used, but drugs with anticholinergic side effects (phenothiazines) should be avoided due to intrinsic anticholinergic effects of PCP.
3. Medical support is required if the patient is unconscious.

III. Amphetamine (Speed, Crystal)

A. Diagnostic Criteria for Amphetamine Intoxication

1. Behavioral or psychological changes such as euphoria, rapid speech, hyperactivity, hypervigilance, agitation, or irritability.

B. Clinical Features

1. Euphoria and increased energy in new users is common.

2. Development of delusions or hallucinations are not unusual in chronic heavy users.

C. Addiction: Physical tolerance develops, requiring increasing doses to achieve usual effect. Psychological dependence is frequent.

D. Amphetamine Withdrawal

1. Generally resolves in 1 week, and is associated with increased appetite, vivid dreaming, fatigue, anxiety, hypersomnia, insomnia, psychomotor agitation or retardation.

2. Depression and suicidal ideation can develop.

E. Treatment

1. Antipsychotics can be used if psychosis is present.

2. Benzodiazepines such as diazepam or lorazepam may also help calm the patient.

IV. Cannabis (Marijuana)

A. Diagnostic Criteria for Intoxication

1. Behavioral or psychological changes such as euphoria, lethargy, sedation, distorted perception, motor impairment, anxiety, or social withdrawal.

2. Two or more of the following: Increased appetite, dry mouth, tachycardia, or conjunctival injection.

B. Clinical Features

1. Euphoria and heightened perceptual sensitivity is typical.

2. Motor skills remain impaired for up to 12 hours after use.

C. Addiction

1. Psychological dependence may develop but existence of physical tolerance remains controversial.

D. Withdrawal: After abrupt discontinuation, heavy users may develop irritability, insomnia, and decreased appetite.

E. Treatment

1. No specific treatment is required for intoxication.

V. Cocaine

A. Diagnostic Criteria for Intoxication

1. Psychological or behavioral changes such as euphoria, hyperactivity, hypersexuality, grandiosity, anxiety, or impaired judgement.

2. Two or more of the following: Tachycardia, mydriasis (dilated pupils), high or low blood pressure, chills or perspiration, nausea or

vomiting, weight loss, agitation or retardation, weakness, arrhythmias, confusion, seizures, coma, dyskinesias, or dystonia.

3. Confusion, seizures, coma, dyskinesias, or dystonia.

B. Clinical Features

1. Irritability, poor concentration, insomnia, and personality change, are common.
2. Intoxication can result in euphoria, impulsive behavior, poor judgement, and perceptual disturbances.
3. Physical sequelae include seizures, nasal congestion and bleeding, cerebral infarcts, and arrhythmias
4. Chronic use is associated with paranoid ideation, aggressive behavior, depression and weight loss.

C. Addiction

1. Psychological dependence is frequent.
2. Tolerance develops with repeated use.

D. Withdrawal

1. Characterized by depression, hypersomnia, anhedonia, anxiety, fatigue, and intense craving for the drug; withdrawal generally remits in 2-5 days.

E. Treatment

1. Hospitalization is sometimes required during withdrawal phase of treatment due to the intense craving.
2. Tricyclic antidepressants (desipramine), amantadine, and carbamazepine may decrease craving.

VI. Hallucinogens

A. Diagnostic Criteria for Intoxication

1. Behavioral or psychological changes such as perceptual disturbances, poor judgement, anxiety, paranoia, or depression.
2. Two or more of the following: Mydriasis, tachycardia, diaphoresis, palpitations, blurred vision, tremors, incoordination.
3. Perceptual changes also must be present (hallucinations, depersonalization).

B. Clinical Features

1. Anxiety and fear of "losing one's mind" are associated with the perceptual changes.

C. Addiction: Psychological addiction is unusual and physical addiction does not occur.

D. Withdrawal: No withdrawal syndrome occurs.

E. Treatment

1. Initial efforts at "talking the patient down" by reassuring the patient are often successful.
2. Brief use of benzodiazepines or antipsychotics may be required in severe cases.

VII. Opioids

A. Diagnostic Criteria for Intoxication

1. Behavioral or psychological changes such as euphoria followed by dysphoria, psychomotor retardation, impaired judgement, impaired social or occupational functioning.
2. Pinpoint pupils (meiosis).
3. One of the following: Drowsiness, coma, slurred speech, or impairment in attention or memory.

B. Clinical Features

1. Initial euphoria is followed by apathy, dysphoria, and psychomotor retardation.
2. Overdose can result in coma, respiratory depression and death.
3. Coexisting illnesses include depression, antisocial personality disorder, alcohol-related disorders, and anxiety disorders.
4. IV use is associated with risk of AIDS, skin abscesses, and bacterial endocarditis.

C. Addiction: Tolerance and dependence develops rapidly.

D. Withdrawal

1. Intensity of withdrawal syndrome is greatest with opiates that have a short half-life such as heroin.
2. Heroin withdrawal begins 8 hours after last use, peaks in 2-3 days and can last up to 10 days.
3. Diagnostic criteria require presence of three or more of the following: Dysphoria, nausea, vomiting, muscle aches, lacrimation, rhinorrhea, mydriasis, piloerection, sweating, diarrhea, yawning, fever, insomnia.

E. Treatment of Heroin Addiction

1. For patients with respiratory compromise an airway should be established and naloxone 0.4 mg IV should be given immediately.
2. Withdrawal symptoms can be managed with methadone (20-80 mg/day) or clonidine (given orally or by patch). Clonidine (0.1-0.3 mg qid) is effective and is usually used as a first line treatment of withdrawal.

VIII. Inhalants

A. Diagnostic Criteria for Intoxication

1. Behavioral or psychological changes such as apathy, fearfulness, irritability, hallucinations, or sensory illusions.
2. Two or more of the following: Dizziness, nystagmus, incoordination, slurred speech, unsteady gait, lethargy, depressed reflexes, psychomotor retardation, tremor, generalized muscle weakness, blurred vision or diplopia, stupor or coma, or euphoria.

B. Clinical Features

1. Inhalant use is high in persons of low socioeconomic status and the young due to low cost and easy availability.
2. Death may result from respiratory depression, aspiration, arrhythmias, or asphyxiation.

C. Addiction: Tolerance develops and psychological dependence may occur.

D. Withdrawal: No prominent withdrawal syndrome exists.

E. Treatment: Low dose benzodiazepines and antipsychotics are indicated for treatment of intoxication associated anxiety, agitation, or psychotic symptoms.

IX. Nicotine

A. Intoxication: Does not occur.

B. Clinical Features

1. Craving is often prominent

C. Addiction: Tolerance develops rapidly

D. Withdrawal (Diagnostic Criteria)

After abrupt cessation or reduction in the amount of nicotine used, four or more of the following occur within 24 hours: dysphoria, insomnia, irritability, anxiety, poor concentration, restlessness, decreased heart rate, increased appetite.

E. Treatment:

1. Nicorette gum or nicotine transdermal patches relieve withdrawal symptoms. Patients can be prescribed a regimen that provides a tapering dose over a period of weeks.
2. Initial dose is that required to ameliorate withdrawal symptoms.

X. Caffeine

A. Diagnostic Criteria for Intoxication

Five or more of the following: Restlessness, nervousness, excitement, insomnia, flushed face, diuresis, GI upset, muscle twitching, rambling speech, arrhythmia, agitation, inexhaustability

B. Clinical Features

1. Occurs with consumption in excess of 250 gms of caffeine (3 cups of coffee)

C. Withdrawal

1. Fatigue, anxiety, depression, headaches, nausea or vomiting
2. Symptoms peak after one day and resolve within 1 week.

D. Addiction: Tolerance can develop.

E. Treatment

1. Elimination or reduction in caffeine intake
2. Benzodiazepines are used rarely during the withdrawal period.

Sleep Disorders

The following criteria apply to all sleep disorder diagnoses:

1. The disorder causes significant distress or impairment in social or occupational functioning.
2. The disorder is not due to the effects of medication, drugs of abuse, or a medical condition.

Primary Insomnia

Primary insomnia is characterized by inability to initiate or maintain sleep.

I. DSM IV Criteria

Difficulty initiating or maintaining sleep when there is no known physical or mental condition (including drug related), resulting in significant distress or impairment.

II. Clinical Features

- **A.** Anxiety or depression commonly coexist with insomnia

III. Differential Diagnosis

- **A.** Dyssomnias, substance abuse, mood, anxiety, or psychotic disorders may present with insomnia.
- **B.** Many medical conditions can cause insomnia including asthma, gastritis, peptic ulcer disease, headaches.

IV. Treatment

- **A.** Temporary use (less than 1 month) of short acting benzodiazepines or chloral hydrate are of use especially when there is an identifiable precipitant (e.g. death of a loved one).
- **B. Sleep Hygiene:**
  1. Encourage patient to keep a consistent pattern of waking, and sleeping at the same time each day.
  2. Avoid large meals before bedtime.
  3. Discontinue stimulant caffeine, alcohol, or nicotine.
  4. Avoid daytime naps
  5. Engage in regular exercise, but avoid exercise before sleeping.
  6. Allow for a period of relaxation before bedtime (hot bath)

Primary Hypersomnia

I. DSM IV Criteria

Excessive somnolence occurs for one month in the absence of physical or medical condition and is associated with daytime sleepiness.

II. Clinical Features

- **A.** Depression may frequently coexist.
- **B.** Can be associated with autonomic dysfunction.
- **C.** May be familial
- **D.** Sleep architecture is normal.

III. Differential Diagnosis

- **A.** Substance abuse, mood, anxiety, or psychotic disorders may present with hypersomnia.
- **B.** Atypical depression and the depressed phase of bipolar illness may present with hypersomnia as an isolated symptom.

IV. Treatment

For daytime sleepiness stimulants such as amphetamine or Ritalin given in the morning are useful.

Narcolepsy

I. DSM IV Criteria

- **A.** Excessive daytime sleepiness
- **B.** Sleep attacks with abnormal manifestations of rapid eye movement sleep during the day (hallucinations, sleep paralysis, sleep onset REM, cataplexy).

II. Clinical Features

- **A.** Social reticence occurs due to fear of having sleep attack.
- **B.** Sudden onset of sleep (cataplexy) can be triggered by strong emotions.
- **C.** Often associated with mood disorders, substance abuse, and generalized anxiety disorder
- **D.** May be familial (>90% have HLA-DR2).

III. **Differential Diagnosis**: Sleep deprivation, primary hypersomnia, breathing related disorders, hypersomnia associated with mental disorder such as depression or substance abuse, medical condition

IV. **Treatment**: Stimulants such as (Ritalin, 10 mg bid or tid) sometimes combined with tricyclic antidepressants (Protriptyline) before bedtime.

Breathing-Related Sleep Disorder (Sleep Apnea)

I. DSM IV Criteria

A. Sleep disruption leading to daytime sleepiness due to sleep related condition.

B. The disturbance is not due to another mental disorder (e.g. depression) or to the effect of a street drug or medication or another general medical condition such as arthritis.

II. Clinical Features

A. Sleep apnea is associated with snoring, restless sleep, memory disturbance, poor concentration, depression, and anxiety disorders.

B. Nocturnal polysomnography demonstrates apneic episodes, frequent arousals, and decreased slow wave and rapid eye movement sleep.

C. Apnea can be central due to brain stem dysfunction or obstructive due to airway obstruction. Obstructive sleep apnea is the most common type.

III. Differential Diagnosis: Other Dyssomnias, medical conditions and substance abuse or withdrawal

IV. Treatment

A. Nasal continuous positive airway pressure (NCPAP) is the treatment of choice.

B. Weight loss, nasal surgery, and uvuloplasty are also indicated if they are contributing to the apnea.

Circadian Rhythm Sleep Disorder

I. DSM-IV Criteria

Misalignment between desired and actual sleep periods which can occur with jet lag or shift work, but can be idiopathic.

II. Clinical Features

A. With jet lag and shift work, performance can be impaired during wakefulness.

B. Mood disorders such as depression and mania can be precipitated by sleep deprivation.

III. Treatment

A. Body naturally adapts to time shifts within one week.

B. Triazolam (Halcion) or zolpidem (Ambien) can be used to correct sleep pattern.

Parasomnias

Parasomnias are defined as unusual or undesirable phenomenon such as nightmares that appear suddenly during sleep.

I. Nightmare Disorder

A. DSM IV Criteria

1. Recurrent awakenings from sleep with clear recall of lengthy and frightening dreams.
2. Occurs late at night, during period of rapid eye movement (REM) sleep
3. Upon awakening, the patient is oriented and alert.

B. Clinical Features

1. Coexisting depressive and anxiety are often present.
2. In children, they often are associated with psychological stress (illness, traumatic event, etc.).

C. Differential Diagnosis: Substance abuse, delirium, post-traumatic stress disorder, schizophrenia, mood disorders may be associated with nightmares but are distinguished by accompanying features.

D. Treatment of Nightmare Disorder: Tricyclic antidepressants and benzodiazepines (such as imipramine and diazepam) are REM suppressants and may provide significant relief.

II. Sleep Terror Disorder

A. DSM-IV Criteria

1. Recurrent abrupt awakening that often inaugurated by piercing scream or cry.
2. Accompanied by intense anxiety (panic) and signs of autonomic arousal.
3. Individual is relatively unresponsive to efforts of others to provide reassurance.

B. Clinical Features of Sleep Terror Disorder

1. Confusion and amnesia are common in children.
2. Occurs in non-REM sleep.

C. Differential Diagnosis: Seizures, substance abuse, and other medical conditions such as temporal lobe epilepsy, and delirium.

D. Treatment of Sleep Terror Disorder: Diazepam is very effective.

III. Sleepwalking Disorder

A. DSM IV Criteria

1. Episodes of complex motor behavior occur during sleep.
2. Episode is associated with decreased responsiveness and confusion upon awakening.

3. There is often poor recall of events.

B. Clinical Features of Sleepwalking Disorder

1. Frequency of episodes can be increased by stress, alcohol use, external (noises), or internal stimuli (distended bladder).
2. Patients often sustain injuries during episodes.

C. Differential Diagnosis: Sleep terror disorder, breathing related disorder, seizures, substance abuse may be associated with sleep walking but are distinguished by their unique clinical features.

D. Treatment of Sleep Terror Disorder: Prevent injury and suppress slow wave sleep (non REM) with benzodiazepines such as diazepam or clonazepam.

Dyssomnias Not Otherwise Specified

I. Nocturnal Myoclonus (periodic leg movements)

A. Abrupt contractions of leg muscles
B. Common in elderly (40%)
C. Results in frequent arousals and daytime somnolence
D. Standard treatments include L-DOPA and benzodiazepines.

II. Restless Legs Syndrome

A. Painful or uncomfortable sensations in calves when sitting or lying down.
B. Common in middle age (5%).
C. Massage, benzodiazepines, propranolol, opioids or carbamazepine can be helpful.

Pharmacology of Hypnotics

Benzodiazepines	Dosage	Ave Half-life of Metabolites	Notes
Triazolam (Halcion)	.125-.25 mg qhs	2 hours	Short acting
Estazolam (ProSom)	1-2 mg qhs	17 hours	Short acting
Flurazepam (Dalmane)	15-30 mg qhs	100 hours, active metabolites long t ½	Hangover is common.
Zolpidem (Ambien)	5-10 mg qhs	3 hours	Non-benzodiazepine; no daytime hangover
Temazepam (Restoril)	7.5-30 mg qhs	11 hours	Short acting
Tricyclic Antidepressants (Doxepin)	50-100 mg	long	Anticholinergic side effects
Antihistamines Diphenhydramine (Benadryl)	50 mg	not applicable	Limited efficacy for mild initial insomnia.
Chloral Hydrate	500 - 1000 mg	metabolite: 8-11 hours	Tolerance after 2 weeks, GI side effects common.

Cognitive Disorders

Delirium

I. DSM IV Diagnostic Criteria

- **A.** Disturbance of consciousness with reduced ability to focus, sustain or shift attention
- **B.** Change in cognition or development of a perceptual disturbance is not due to dementia.
- **C.** The disturbance develops over a short period of time (hours to days) and fluctuates during the course of the day.
- **D.** There is clinical evidence that the disturbance is caused by a general medical condition and/or substance use or withdrawal.

II. Clinical Features of Delirium

- **A.** Delirium is characterized by global cognitive impairment in consciousness, awareness of environment, attention, and concentration.
- **B.** Many patients are disoriented display disorganized thinking.
- **C.** A fluctuating clinical presentation is a hallmark of the disorder and the patient may have moments of lucidity during the course of the day.
- **D.** Perceptual disturbances may take the form of misinterpretations, illusions or frank hallucinations, most commonly visual in nature, but other sensory modalities can also be misperceived.
- **E.** Sleep-wake cycle disturbances are common.
- **F.** Psychomotor agitation can be severe and result in pulling out IV's and catheters, falling, and combative behavior.
- **G.** The quietly delirious patient may reduce fluid and food intake without displaying agitated behavior.
- **H.** Failure to report use of medications or substance abuse is a common cause of withdrawal delirium in hospitalized patients.
- **I.** Infection and medication interaction or toxicity is a common cause of delirium in the elderly.

III. Epidemiology of Delirium

- **A.** Delirium is associated with increased morbidity and mortality, and may seriously complicate the presentation and treatment of hospitalized patients.
  - **1.** Injuries may occur when the patient is delirious and agitated.
  - **2.** Permanent cognitive impairment can result if the delirium goes unrecognized.

3. Many patients die as a result of end-stage organ failure or multi-system failure.

B. The incidence of delirium in hospitalized patients is 10-15%, with higher rates in the elderly. Other patients at risk include those with known CNS disorders, substance abusers, and HIV positive patients.

IV. Classification of Delirium

A. Delirium due to a General Medical Condition (specify which condition)
B. Delirium due to Substance Intoxication (specify which substance)
C. Delirium due to a Substance Withdrawal (specify which substance)
D. Delirium due to a Multiple Etiologies (specify which conditions)
E. Delirium Not Otherwise Specified (unknown etiology or due to other causes such as sensory deprivation)

V. Differential Diagnosis of Delirium

A. Dementia:

1. Dementia is the most common disorder that must be distinguished from delirium. This distinction can be difficult since demented individuals often develop superimposed delirium.
2. The major difference is that demented patients are alert, without the disturbance of consciousness characteristic of delirious patients.
3. Information from family or caretakers will be helpful in determining whether there was a pre-existing dementia.

B. Psychotic Disorders and Mood Disorders with Psychotic Features - Delirium can be distinguished from other conditions with psychotic symptoms by the abrupt development of cognitive deficits including disturbance of consciousness. In Delirium, there should be some evidence of an underlying medical or substance-related condition.

C. Malingering - Patients with Malingering lack objective evidence of a medical or substance-related condition.

VI. Treatment of Delirium

A. Most cases of Delirium are treated by correcting the underlying condition.
B. Psychotic symptoms can be managed with haloperidol (Haldol) 1-10 mg per day in divided doses. Haloperidol may be given PO, IM or IV, using lower doses with parenteral routes.
C. Agitation and anxiety can be managed with lorazepam, 1-12 mg per day in divided doses. Lorazepam is preferred in patients with medical problems since it has no active metabolites, and its pharmacokinetics do not change with aging or moderate hepatic dysfunction.
D. Quiet environment with close observation should be provided. Physical restraints may be necessary to prevent harm to the patient or others.

Dementia

I. DSM-IV Diagnostic Criteria

A. The development of multiple cognitive deficits manifested by:

1. Memory impairment

2. One or more of the following:

a. Aphasia (language disturbance)

b. Apraxia (impaired ability to carry out purposeful movement, especially the use of objects)

c. Agnosia (failure to recognize or identify objects)

d. Disturbance in executive functioning (abstract thinking, planning and carrying out tasks)

B. The cognitive deficits cause significant social and occupational impairment and represent a significant decline from a previous level of functioning.

C. The deficits are not the result of a delirium.

II. Clinical Features of Dementia

A. The memory impairment involves difficulty in learning new material and/or forgetting previously learned material. Early signs may be losing belongings or getting lost more easily.

B. Once the dementia is well established, patients may have great difficulty performing standard activities of daily living such as bathing, dressing, cooking, shopping.

C. Poor insight and impaired judgment are common features of dementia.

1. Patients are often unaware of their deficits.

2. Patients may overestimate what they can safely do.

3. Disinhibition can lead to poor social judgment such as making inappropriate comments.

D. Psychiatric symptoms are common, and patients frequently complain about or manifest symptoms of anxiety, depression, and sleep disturbance.

E. Paranoid delusions (especially accusations that others are stealing items which are lost) and hallucinations (especially visual) are common.

F. Since gait disturbance is frequently present, falls are common and must be safeguarded against.

G. These patients are more vulnerable to physical stressors (illness) and psychosocial stressors (family problems).

H. Delirium is frequently superimposed upon dementia as these patients are more sensitive to the effects of medications and physical illness.

I. Previous definitions of dementia implied a progressive or irreversible course. The current criteria are based solely on the presence of cognitive deficits with no comment on prognosis.

III. Epidemiology of Dementia

A. The prevalence of dementia increases with age. Approximately 3% of patients over 65 year old have Dementia, but after age 85 nearly 20% of the population is effected.

B. Dementia of the Alzheimer's Type is the most common, comprising 50-60% of all cases. Vascular Dementia is the second most common cause of dementia, accounting for approximately 13% of all cases.

IV. Classification of Dementia

A. Dementia of the Alzheimer's Type

1. The patient meets basic diagnostic criteria for Dementia but also:
   - **a.** Gradual onset and continued cognitive decline.
   - **b.** Cognitive deficits are not due to another medical condition or substance.
   - **c.** Symptoms are not better accounted for by another psychiatric disorder.
2. Alzheimer's Disease is further classified as:
   - **a.** Early or late onset
   - **b.** With delirium, delusions, depressed mood or uncomplicated
3. The average life expectancy after onset of illness is 8-10 years.

B. Vascular Dementia (previously Multi-Infarct Dementia)

1. The patient meets basic diagnostic criteria for Dementia but also has:
   - **a.** Focal neurological signs and symptoms or laboratory evidence of cerebrovascular disease (e.g., multiple infarctions)
   - **b.** Vascular dementia is further classified as: with delirium, delusions, depressed mood or uncomplicated
   - **c.** Unlike Alzheimer's disease, changes in functioning may be abrupt and the long term course tends to have a stepwise and fluctuating pattern. Deficits are highly variable depending on the location of the vascular lesions, leaving some cognitive functions intact.

C. Dementia Due to Other General Medical Conditions

1. Meets basic diagnostic criteria for Dementia but there must also be evidence from the history, physical exam or laboratory findings that the symptoms are the direct physiological consequence of a general medical condition.
2. **Dementia due to HIV-1 Infection**
   - **a.** Caused by a direct physiological effect of the HIV virus on the brain.
   - **b.** Clinical presentation includes psychomotor retardation, forgetfulness, apathy, problem solving impairment, flat affect, social withdrawal.

   c. Frank psychosis may be present.
   d. Frequently accompanied by neurological symptoms.
3. **Dementia Due to Head Trauma**
   a. Clinical presentation is varied depending on the location and extent of the trauma.
   b. In general, the dementia should not progress. The one notable exception to this is Dementia Pugilistica which is caused by repeated traumas. A progressive dementia after a single trauma should alert the clinician to search for another underlying disorder.
   c. Young males engaged in risk-taking behavior are at highest risk.
   d. Substance abuse disorder is a common co-morbid condition.

D. Dementia Due to Parkinson's Disease
1. Dementia occurs in approximately 40-60% of patients with Parkinson's Disease
2. The Dementia of Parkinson's may be exaggerated by the presence of Major Depression, which is common in patients with Parkinson's disease.

E. Dementia Due to Huntington's Disease
1. Dementia is an inevitable outcome of the disease.
2. Initially, language and factual knowledge may be relatively preserved, while memory, reasoning and executive function is more seriously impaired.
3. Occasionally, Dementia can precede the onset of motor symptoms.

F. Dementia Due to Pick's Disease
1. Since Pick's Disease effects the frontal and temporal lobes, the early phases of the disease will be characterized by disinhibition, apathy, and language abnormalities.
2. Later stages of the illness may by clinically similar to Alzheimer's disease.
3. Brain imaging studies can show frontal and/or temporal atrophy.

G. Dementia Due to Creutzfeldt-Jakob Disease
1. The illness is a subacute spongiform encephalopathy caused by a prion.
2. The clinical triad consists of dementia, involuntary myoclonic movements and periodic EEG activity.

H. Dementia Due to (specify which condition)

I. General Medical Conditions That Can Cause Dementia

Vascular
- Multiple infarcts
- Subacute bacterial endocarditis
- Congestive heart failure
- Collagen vascular diseases (e.g., SLE)

Nutritional
- Folate deficiency
- Vitamin B 12 deficiency
- Thiamine deficiency (Wernicke Korsakoff syndrome)
- Pellagra

Infections
- HIV
- Cryptococcal meningitis
- Encephalitis
- Sarcoid
- Neurosyphilis
- Creutzfeldt-Jakob disease

Neurological
- Normal pressure hydrocephalus
- Huntington's disease
- Parkinson's disease
- Pick' s disease
- Brain tumor
- Multiple sclerosis
- Head trauma
- Cerebral anoxia/hypoxia
- Seizures
- Amyelotrophic lateral sclerosis

Metabolic and Endocrine
- Hypothyroidism
- Hyperparathyroidism
- Pituitary insufficiency
- Diabetes
- Hepatic encephalopathy
- Uremia
- Porphyria
- Wilson's disease

Toxicity
- Heavy metals
- Intracranial radiation
- Post-infectious encephalomyelitis
- Chronic alcoholism
- Industrial chemicals

J. Substance-Induced Persisting Dementia

1. Meets basic diagnostic criteria for Dementia but also:
   - **a.** The deficits persists beyond the usual duration of Substance intoxication or withdrawal.
   - **b.** There is evidence from the history, physical exam or laboratory findings that the deficits are etiologically related to the persisting effects of substance use (specify which drug or medication).
2. When drugs of abuse are involved, most patients have met criteria for Substance Dependence at some time.
3. Since the deficits persist even after the patients are abstinent, many patients will have negative serum and urine toxicology screens.

4. Clinical presentation is that of a typical dementia. Occasionally patients will improve mildly after the substance use is discontinued, but most display a progressive downhill course.

K. Dementia Due to Multiple Etiologies: This diagnosis is applicable when multiple disorders are responsible for the dementia.

L. Dementia Not Otherwise Specified: For example, there is insufficient evidence to establish an etiology.

V. Differential Diagnosis of Dementia

A. Delirium

1. This is the most common disorder that may mimic dementia. Distinction of delirium from dementia can be difficult since demented individuals are prone to developing a super-imposed delirium.
2. Demented patients are alert, delirious patients have an altered level of consciousness.
3. Delirious patients demonstrate a fluctuating clinical course, whereas demented patients display a stable, slowly progressive, downhill course.

B. Amnestic Disorder - characterized by isolated memory disturbance without the other cognitive deficits seen in Dementia.

C. Mental Retardation

1. Mental retardation is congenital and Dementia is acquired.
2. Mental retardation is not necessarily characterized by a memory disturbance, although the capacity to learn new things may be diminished.
3. Dementia requires that there be a significant decrease in the previous level of functioning.

D. Schizophrenia

1. Schizophrenia shares with Dementia some cognitive dysfunction, and schizophrenia may also be characterized by a decrease in the previous level of functioning
2. Schizophrenia has a much younger age of onset, and is characterized by psychotic symptoms, and by less global and less severe cognitive deficits.

E. Major Depressive Disorder

1. Both Dementia and Depression may present with complaints of apathy, poor concentration and impaired memory.
2. Cognitive deficits due to a mood disorder may appear to be dementia and have been referred to as "pseudodementia."
3. Differentiation of dementia from depression can be difficult, especially in the elderly. Demented patients are often also depressed.

4. Careful history taking to determine the onset of mood and cognitive symptoms can be helpful. In depression, the mood symptoms should precede the development of cognitive deficits and vice versa.
5. Medical evaluation to rule out treatable causes of dementia or medical causes of a depressive syndrome should be completed.
6. When in doubt, a trial of antidepressants is warranted as the prognosis for depression is much better than that of dementia. If the depression is superimposed on the dementia, treatment of the depression will still improve the functional level of the patient.

VI. Clinical Evaluation of Dementia

A. All patients presenting with cognitive deficits should be evaluated to determine the etiology of the Dementia. Some causes of Dementia are treatable and reversible.

B. Detailed medical and psychiatric history

C. Detailed physical exam and psychiatric assessment with special attention to the neurological exam.

D. Re-evaluation of all medications

E. Laboratory Evaluation:

1. Complete blood chemistry
2. CBC with differential
3. Thyroid function tests
4. Urinalysis
5. Drug screen
6. Serum levels of all measurable medications
7. Vitamin B-12 level
8. Heavy metal screen
9. Serological studies (VDRL or MHA-TP)
10. EKG
11. Chest X-ray
12. EEG
13. Brain Imaging (CT, MRI)

VII. Treatment of Dementia

A. Correct any underlying medical condition.

B. Minimize the use of CNS depressant and anticholinergic medications.

C. Patients function best if highly stimulating environments are avoided.

D. The family and/or caretakers should receive psychological support to provide optimum care.

1. Support groups and psychotherapy
2. Reading material: The 36 Hour Day (Mace & Rabins 1981).
3. Day Care centers

E. Treatment of Alzheimer's

1. Tacrine 10 mg QID, increase every 6 weeks to 40 mg QID.

2. May slow the progress of the disease
3. Requires close monitoring of liver function for first 5 months due to liver toxicity

F. For Vascular Dementia:

1. Hypertension must be controlled
2. Aspirin may be indicated to reduce thrombus formation.

G. Agitation and Anxiety

1. Behavioral techniques such as redirection, distraction and relaxation.
2. Reduce stimuli
3. **Pharmacotherapy:**
   a. Buspirone and Trazodone have both been used with mixed results.
   b. Combative patients often require the use of small doses of high potency antipsychotics, such as Haloperidol.

H. Psychosis

1. High potency antipsychotics such as haloperidol, fluphenazine or Risperdal should be given only at low doses (to reduce the risk of side effects and anticholinergic load).
2. Allow several days between increasing dosage to prevent overmedication and oversedation.

I. Depression

1. SSRI's are first-line antidepressants in the elderly. Venlafaxine (37.5 mg BID to 150 mg BID) is useful; bupropion and trazodone may also be used.
2. Tricyclic antidepressants should be avoided in patients with dementia due to their anticholinergic effects.

Amnestic Disorder

Amnesia is the loss of memory with an unknown cause, or the amnesia may be substance-induced.

I. DSM IV Criteria for Amnestic Disorder

A. Memory impairment manifests as an inability to learn new information or inability to recall previously learned information.

B. The memory disturbance results in significant impairment in social and occupational functioning, and represents a significant decline from a previous level of functioning.

C. The memory impairment is not caused by delirium or dementia, and for substance induced amnesia, persists beyond intoxication or withdrawal.

II. Clinical Features

A. Most amnesias result from damage to the hippocampus, mammillary bodies and fornix damage which is most commonly due to thiamine deficiency, trauma, tumors or infection.

B. Often delirium precedes the amnesia, but the loss of memory persists after resolution of the of delirium. Confabulation is often seen as the individual attempts to fill in the gaps of his memory with falsities. The stories often change upon repeated questioning.

C. Orientation to self is rarely lost; time and place disorientation is most common.

D. Korsakoff's syndrome can follow Wernicke's encephalopathy in chronic alcoholism in which by anterograde amnesia is present. This is characterized by confabulation in which patients "fill in" the gaps of their memory with invented stories.

E. Conditions associated with memory impairment include multiple sclerosis, alcoholic blackouts, and head injury.

III. Classification

A. Transient: Less than 1 month duration

B. Chronic: Longer than 1 month

C. Due to a Medical Condition: There is clinical evidence of a medical condition (including head trauma) being directly responsible for the disturbance.

D. Substance Induced: Evidence from evaluation indicate the memory disturbance is etiologically related to substance use.

IV. Differential Diagnosis of Amnesia

A. Dementia: In addition to the memory deficit there are also cognitive deficits of aphasia, apraxia, agnosia and executive functioning.

B. Delirium: In addition to the memory deficit, there is a disturbance of consciousness as evident by impairment in attention.

C. Substance Intoxication or Withdrawal: The amnesia does not persist once the intoxication and withdrawal syndrome resolve.

D. Factitious Disorder, Malingering: Careful and repeated testing reveals inconsistencies in the degree of memory deficit. There is also absence of evidence of an underlying condition causing the impairment.

V. Treatment of Amnesia

A. Correct the underlying medical condition.

B. In alcoholics give thiamine and folate supplements to prevent the development of Wernicke's encephalopathy and Korsakoff's syndrome.

C. Memory aids may help once the deficit has resolved.

D. Manage coexisting conditions such as anxiety and depression.

Mental Disorders Due to a Medical Condition

This terminology is designed to describe psychiatric symptoms that are part of the clinical presentation of a non-psychiatric illness. This separate designation is used to encourage more thorough evaluation of a patient who presents with psychiatric symptoms.

I. DSM-IV Diagnostic Criteria

- **A.** There is evidence from the history, physical exam or laboratory findings that the symptoms are a direct physiological consequence of a general medical condition.
- **B.** The disturbance is not better accounted for by another mental disorder
- **C.** The disturbance is not due to a delirium.

II. Psychotic Disorder Due to a General Medical Condition

- **A.** Diagnostic Criteria - Meets criteria for a Mental Disorder due to a General Medical Condition and there are prominent hallucinations or delusions
- **B.** Clinical Features of Psychotic Disorder Due to a General Medical Condition
  - **1.** As in delirium, hallucinations due to a medical condition and include visual, olfactory and tactile elements more often than in primary psychotic disorders.
  - **2.** A common medical condition associated with olfactory hallucinations is temporal lobe epilepsy.
  - **3.** Somatic and persecutory delusions are the most common types of delusions associated with a medical condition.
- **C. Common Diseases and Disorders That Can Cause Psychosis**

Addison's disease	Multiple sclerosis
CNS infections	Myxedema
CNS neoplasms	Pancreatitis
CNS trauma	Pellagra
Cushing's disease	Pernicious anemia
Delirium	Porphyria
Dementias	SLE
Folic acid deficiency	Temporal lobe epilepsy
Huntington's chorea	Thyrotoxicosis

D. Differential Diagnosis of Psychotic Disorder Due to a General Medical Condition

1. Primary Psychotic Disorders

a. The onset of illness in a primary psychotic disorder is usually earlier (generally before 35), with symptoms beginning prior to the onset of the medical illness.

b. Complex auditory hallucinations are more characteristic of primary psychotic disorders. Non-auditory hallucinations are more commonly seen in general medical conditions.

2. Substance Induced Psychotic Disorder

a. When there is evidence of recent or prolonged substance use, withdrawal from a substance or toxin exposure and psychotic symptoms, this diagnosis is most likely.

b. Blood or urine screens for suspected substances may be helpful in establishing this diagnosis.

c. Common substances that can cause psychosis include: Anticholinergics, steroids, OTC cold medications, amphetamines, cocaine, hallucinogens, L-dopa, and disulfiram.

E. Treatment of Psychotic Disorder Due to a General Medical Condition

1. Correct any underlying medical conditions.

2. A trial of antipsychotic medication may be necessary to manage symptoms while the patient's medical condition is being treated. The potential side effects of new medications may cause new problems.

III. Mood Disorder Due to a General Medical Condition

A. Diagnostic Criteria - Meets criteria for a Mental Disorder due to a General Medical Condition, and the presence of a prominent and persistent mood disturbance characterized by either or both of the following:

1. With depressed mood or lack of pleasure in most, if not all, activities

2. Elevated, expansive or irritable mood

B. Clinical Features of Mood Disorder Due to a General Medical Condition

1. The mood symptoms cannot be a psychological reaction to being ill - this would be Adjustment Disorder with Depressed Mood

2. Subtypes include:

a. Mood Disorder Due to a General Medical Condition with Depressive Features

b. Mood Disorder Due to a General Medical Condition with Major Depressive-Like Episode

c. Mood Disorder Due to a General Medical Condition with Manic Features

d. Mood Disorder Due to a General Medical Condition with Mixed Features

C. Common Diseases and Disorders That Can Cause Depressive Syndromes

- Addison's disease
- AIDS
- Asthma
- Chronic infection (mononucleosis, tuberculosis)
- CHF
- Cushing's disease
- Diabetes
- Hyperthyroidism
- Hypothyroidism
- Infectious hepatitis
- Influenza
- Malignancies
- Malnutrition
- Anemia
- Multiple sclerosis
- Porphyria
- Rheumatoid arthritis
- Syphilis
- SLE
- Uremia
- Ulcerative colitis

D. Differential Diagnosis of Mood Disorder Due to a General Medical Condition

1. **Primary Mood Disorder** - If a clear causative physiological mechanisms cannot be established between the mood symptoms and the medical condition, the primary mood disorder diagnosis should be applied. Fluctuation of mood symptoms with course of the illness might indicate a Disorder Due to a Medical Condition.
2. **Substance-Induced Mood Disorder**
   - **a.** When there is evidence of recent or prolonged substance use, withdrawal from a substance or toxin exposure and psychotic symptoms, a substance-induced mood is most likely.
   - **b.** Blood or urine screens for suspected substances may be helpful in establishing this diagnosis.
   - **c.** Common substances that can cause depressive syndromes include: most antihypertensives, hormones (cortisone, estrogen, progesterone, oral contraceptives), antiparkinsonian drugs, benzodiazepines, alcohol, chronic use of sympathomimetics, and withdrawal from psychostimulants.
3. **Treatment of Mood Disorder Due to a General Medical Condition**
4. Correct the underlying medical condition.
5. For persistent conditions such as stroke-induced Mood Disorder, antidepressant and anti-manic drugs may be indicated. Be careful not to create new problems with side effects/interactions from more medication.

IV. Anxiety Disorder Due to a General Medical Condition

A. Diagnostic Criteria - Meets criteria for a Mental Disorder due to a General Medical Condition and there is prominent anxiety, panic attacks or obsessions/compulsions that cause distress or impaired social or occupational functioning

B. Clinical Features of Anxiety Disorder Due to a General Medical Condition

1. The anxiety symptoms cannot be a psychological reaction to being ill. This would be Adjustment Disorder with Anxiety.

2. Subtypes include

a. with Generalized Anxiety

b. with Panic Attacks

c. with Obsessive-Compulsive Symptoms

3. Common Disorders Associated with Anxiety

Cardiovascular
- Anemia
- Angina
- Congestive heart failure
- Hypertension
- Mitral valve prolapse

Neurologic
- CVA
- Epilepsy
- Huntington's disease
- Infection
- Meniere's disease
- Migraine
- Multiple sclerosis
- TIA
- Tumor
- Wilson's disease

Pulmonary
- Asthma
- Hyperventilation
- Pulmonary embolus
- Disorders that cause shortness of breath

Endocrine
- Addison's disease
- Carcinoid
- Cushing's syndrome
- Diabetes
- Hyperthyroid
- Hypoglycemia
- Hypoparathyroid
- Menopausal
- Pheochromocytoma
- Premenstrual

Other Disorders
- Anaphylaxis
- B 12 deficiency
- Electrolyte disturbances
- Heavy metal poisoning
- Systemic infections
- SLE
- Temporal arteritis
- Uremia

C. Differential Diagnosis of Anxiety Disorder Due to a General Medical Condition

1. **Primary Anxiety Disorder** - If clear causative physiological mechanisms cannot be established between the anxiety symptoms and the medical condition, use the primary mood disorder diagnosis.
2. **Substance-Induced Anxiety Disorder**
   - **a.** When there is evidence of recent or prolonged substance use, withdrawal from a substance or toxin exposure and psychotic symptoms, this diagnosis is most likely.
   - **b.** Blood or urine screens for suspected substances may be helpful in establishing this diagnosis.
   - **c.** Common substances that can cause anxiety include: Amyl nitrate, antiasthmatics, anticholinergics, caffeine, decongestants, hallucinogens, marijuana, nicotine, psychostimulants (amphetamines, cocaine), steroids, and withdrawal from alcohol, opiates, and sedative hypnotics.

D. Treatment of Anxiety Disorder Due to a General Medical Condition

1. Correct the underlying medical condition.

2. Short term use of antianxiety medications may be indicated to control symptoms.

V. Delirium Due to a General Medical Condition see Cognitive Disorders, page 111.

VI. Dementia Due to a General Medical Condition see Cognitive Disorders, page 113.

VII. Amnestic Disorder Due to a General Medical Condition, see Cognitive Disorders, page 119.

VIII. Sleep Disorder Due to a General Medical Condition see Sleep Disorders, page 103.

IX. Catatonic Disorder Due to a General Medical Condition

A. Diagnostic Criteria - Meets criteria for a Mental Disorder due to a General Medical Condition and there is catatonia (motoric immobility, excessive purposeless motor activity, extreme negativism or mutism, abnormal voluntary movement, or echolalia/echopraxia).

B. Clinical Features of Catatonic Disorder Due to a General Medical Condition

1. Most commonly, catatonia is seen in its immobility form - waxy flexibility or stupor.
2. Negativism is characterized by resistance to instructions or to changing position.
3. Bizarre posturing and grimacing can occur.
4. Echolalia or echopraxia involve imitation of words or movements of others.
5. Specify which medical condition is involved.

C. Common Diseases and Disorders That Can Cause Catatonia: Hypercalcemia, diabetic ketoacidosis, hepatic encephalopathy, CNS neoplasm, head trauma, stroke, encephalitis

D. Differential Diagnosis of Catatonic Disorder Due to a General Medical Condition

1. **Medication-Induced Movement Disorder** - In patients taking antipsychotic medication, abnormal involuntary movements can occur as a side effect of the medication.
2. **Schizophrenia, Catatonic Type** - Hallucinations, delusions and thought disorder will be present and there will be an absence of an underlying causative medical condition.
3. **Mood Disorder with Catatonic Features** - There will not be an underlying causative medical condition, and the diagnostic criteria for mania or depression will be present.

E. Treatment of Catatonic Disorder Due to a General Medical Condition

1. Treatment of the underlying medical condition will frequently result in resolution of the catatonia.
2. There is no specific treatment for medically induced catatonia.

X. Personality Change Due to a General Medical Condition

A. Diagnostic Criteria - Meets criteria for a Mental Disorder due to a General Medical Condition, and there is a persistent change in the individual's previous personality pattern that causes significant distress or impaired social or occupational functioning.

B. Clinical Features of Personality Change Due to a General Medical Condition

1. The clinical presentation is varied, and is dependent on the nature of the underlying medical disorder.
2. Personality changes include affective lability, poor impulse control, socially inappropriate behavior, aggressive behavior, apathy, and suspiciousness.
3. The personality changes cannot be a reaction to an illness, such as personality changes due to chronic pain.

C. Common Diseases and Disorders That Can Cause Personality Change Due to a General Medical Condition

1. CNS disorders, including tumors, ischemic stroke, head trauma, Huntington's disease, seizure disorders
2. CNS infections, including post-encephalitis syndrome, HIV
3. Autoimmune disorders, such as systemic lupus erythematosus.
4. Endocrine disorders: hyper- and hypothyroidism, Cushing's disease, Addison's disease.

D. Differential Diagnosis of Personality Change Due to a General Medical Condition

1. Personality Disorders - Personality Disorders are stable, long-term conditions which encompass most if not all aspects of a patient's life, and are not associated with a medical condition
2. Personality Change Due to a General Medical Condition is defined as a change in a well-established personality pattern.

E. Treatment of Personality Change Due to a General Medical Condition

1. The underlying medical condition should be treated. Personality changes due to metabolic and endocrine disorders are often reversible with treatment.
2. Anticonvulsants have been used with some success for aggressive behavior.
3. Antipsychotics may be warranted for paranoia and agitation.
4. Benzodiazepines may increase disinhibition in some patients.

5. There are some reports that Buspirone can be helpful for agitation and aggression.
6. Behavioral programs are occasionally successful for disinhibition.

XI. Mental Disorder Not Otherwise Specified Due to a General Medical Condition: This category is used when a general medical condition has been determined to be the cause of psychiatric symptoms, but does not meet the criteria of one of the already established diagnoses described above.

XII. Catatonic Disorder Due to a Medical Condition

A. Diagnosis: The presence of catatonia seen as motoric immobility, excessive motor activity (purposeless and not influenced by external stimuli), extreme negativism or mutism, peculiarities in voluntary movement, echolalia, echopraxia.

B. Clinical Features

1. Catatonia is internally driven with the patient is unresponsive to intervention or redirection.
2. Most commonly, catatonia is seen in its immobility form. Waxy flexibility, stupor, posturing, rigidity, resistance to movement, grimacing, echolalia, echopraxia are signs associated with catatonia.
3. CNS conditions are primarily responsible for most catatonic states. Metabolic abnormalities can also result in this disorder.

C. Differential Diagnosis of Catatonic Disorder Due to a Medical Condition

1. **Schizophrenia, catatonic type:** No underlying medical condition, thought disorder, hallucinations or delusions.
2. **Mood disorder with catatonic features:** Absence of a medical condition and presence of the criteria for mania or depression.
3. **Neuroleptic induced movement disorder:** Caused by high doses of high potency neuroleptics.

D. Treatment of Catatonic Disorder Due to a Medical Condition

1. Careful physical examination, laboratory studies and brain imaging studies are necessary to identify the underlying medical condition. Correction of the condition will most often result in resolution of catatonia.
2. Benzodiazepines (lorazepam) at relatively high doses and ECT have been used to reverse catatonic stupor.

XIII. Personality Change Due to a General Medical Condition

A. Diagnosis

1. A persistent personality disturbance that represents a change from the individual's previous personality pattern.
2. The disturbance causes significant distress and impairment in functioning.
3. **Classification**
   - **a.** Labile type: Predominant affective lability.
   - **b.** Disinhibited type: Poor impulse control.
   - **c.** Aggressive type: Aggressive behavior.
   - **d.** Apathetic type: Marked indifference.
   - **e.** Paranoid type: High suspiciousness or paranoid behavior.
   - **f.** Other type: Other predominant features not listed above.
   - **g.** Combined type: More than one of the above.
   - **h.** Unspecified type.

B. Clinical Features

1. The personality change is first noticed by the patient's relatives and friends, and is often remains fixed and unresponsive to traditional psychotherapy treatment.
2. Loss of employment, divorce or social isolation are commonly seen. Frontal lobe pathology is often associated with disinhibition, aggression and apathy.
3. Temporal lobe epilepsy may cause lability of mood or paranoia.
4. Metabolic anomalies and correctable endocrinopathies may cause reversible personality change. Chronic pain is often associated with personality change.

C. Differential Diagnosis of Personality Change Due to a General Medical Condition

1. Dementias due to Pick's disease or of the Alzheimer's disease show personality change in the context of all the other diagnostic criteria for dementia.
2. Schizophrenia: Absence of a temporally associated medical condition and presence of the diagnostic criteria for schizophrenia.
3. Substance induced: Concurrent use or history of long term use of drugs or alcohol.
4. Personality disorder: No significant deterioration from a previous level of function.

D. Treatment of Personality Change Due to a General Medical Condition

1. Correct the underlying condition. Behavioral and supportive therapies may be of some use.
2. Anticonvulsants such as carbamazepine, valproic acid may be used to control the outbursts. Benzodiazepines should be used

with caution as they may exacerbate disinhibition. Buspirone may also be used for labile and aggressive symptoms.

3. Neuroleptics may be given in paranoid, aggressive, and disinhibited symptoms.

XIV. Sexual Dysfunction Due to a General Medical Condition

A. Diagnosis

1. Clinically significant sexual dysfunction that results in marked distress or interpersonal difficulty.
2. Classification
   - **a.** Female or male hypoactive sexual desire: Indicates absent or deficient sexual desire.
   - **b.** Female or male dyspareunia: Characterized by painful intercourse.
   - **c.** Other female or male sexual dysfunction: Other predominant feature such as anorgasmia.
   - **d.** Male erectile disorder: Dysfunction in male erectile ability.

B. Clinical Features

1. Endocrine anomalies, neuropathies, infections, peripheral vascular disease, anatomic anomalies, post-surgical scaring are often temporally associated with these disorders.
2. Nocturnal penile tumescence studies and laboratory evaluation help in establishing the diagnosis.

C. Differential Diagnosis

1. Primary sexual dysfunction: Lack of a medical condition related to the disorder or presence of psychological factors contributing to the severity of the disorder.
2. Substance induced: Presence of a substance, or extensive use of a substance within four weeks of the onset of symptoms.
3. Major depression: Lack of interest in sex is often seen in depression in addition to the remaining criteria for a depressive disorder.

D. Treatment

1. Establish the diagnosis by careful physical and laboratory exam. May require gynecology, urology, neurologic or vascular evaluation.
2. Correct any underlying conditions. Yohimbine is an alpha 2 receptor agonist that is useful in the treatment of erectile dysfunction (4-7.5 mg tid).

Eating Disorders

Anorexia Nervosa

I. DSM IV Diagnostic Criteria

A. The patient refuses to keep weight above 85% of expected weight for age and height.

B. Intense fear of weight gain or of being fat, even though underweight.

C. Disturbance in the perception of ones weight and shape, or denial of seriousness of current low weight

D. Amenorrhea for three cycles in post-menarchal females

II. Classification of Anorexia Nervosa

A. Restricting Type Excessive Dieting: No regular binging or purging during current episode.

B. Binge-Eating or Purging Type: Regular binging and purging behavior occurs during current episode (purging may be in the form of vomiting, laxative abuse, enema abuse, or diuretic abuse).

III. Clinical Features of Anorexia Nervosa

A. Anorexia nervosa is characterized by obsessive compulsive features, (counting calories, hoarding recipes and, food), diminished sexual activity, rigid personality, strong need to control ones environment, social phobia features (as in fear of eating in public). Anorexia nervosa commonly coexists with major depressive disorder.

B. Complications: All body systems may be affected depending on the degree of starvation and the type of purging. Leukopenia and anemia, dehydration, metabolic acidosis (due to vomiting) or alkalosis (due to laxatives), diminished thyroid function, low sex hormone levels, osteoporosis, bradycardia, encephalopathy are commonly seen.

C. Physical signs and symptoms may include gastrointestinal complaints, cold intolerance, emaciation, parotid gland enlargement, lanugo hair development, hypotension, peripheral edema, poor dentition, and lethargy.

IV. Epidemiology of Anorexia Nervosa

A. Most prevalent in industrialized societies with an abundance of food and where thinness is valued as being attractive.

B. 90% of cases occur in females: The prevalence in females is 0.5%-1.0%. The disorder begins in early adolescence and is rare after the age of forty.

C. Peak incidences occur at age 14 and at age 18 years.

D. There is an increased risk in first degree relatives, and there is a higher concordance rate in monozygotic twins.

E. Death occurs in 10% of previously hospitalized individuals.

V. Differential Diagnosis of Anorexia Nervosa

A. Major Depression: Not associated with intense desire to lose weight or fear of weight gain.

B. Medical Conditions: Malignancies, AIDS, superior mesenteric artery syndrome (postprandial vomiting due to gastric outlet obstruction) are not associated with a distorted body-image nor the desire to lose weight.

C. Social Phobia: Social phobia may manifest as fear of eating in public but is distinguished from anorexia by the presence of additional fears, (i.e. speaking in public).

D. Obsessive-Compulsive Disorder: Additional obsessions and compulsions unrelated to weight and food must be present to diagnose this disorder.

E. Body Dysmorphic Disorder: Additional distortions of body image must be present to diagnosis this disorder.

F. Bulimia Nervosa: These patients are able to maintain weight at or above expected minimum.

VI. Laboratory Evaluation of Anorexia Nervosa

Decreased serum albumin, globulin, calcium, hypokalemia, hyponatremia, anemia, and leukopenia may be present.

VII. Treatment of Anorexia Nervosa

A. Psychotherapies include psychodynamic psychotherapy, family therapy, behavioral therapy, and group therapy.

B. Pharmacotherapy of Anorexia Nervosa

1. Two-thirds of patients with anorexia or bulimia nervosa have a history of a major depressive episode.

2. Amitriptyline (Elavil), may be effective in promoting weight gain. Initial dosage is 50 mg at bedtime, then increased by 50-mg increments until 150 mg or 3.25 mg/kg/d is attained. An electrocardiogram should be obtained. Improvement is not usually observed until after 3-4 weeks.

3. Fluoxetine (Prozac) has been used successfully in the therapy of anorexia and bulimia; up to 60 mg per day for bulimia.

4. Cyproheptadine (Periactin) is an anti-histamine with serotonin-blocking activity; may be effective for promoting weight gain. Mild antidepressant effect; well tolerated. Dosage: 16-32 mg per day.
5. Hospitalization may become necessary if weight loss becomes severe. Specialized treatment programs including behavioral treatment focusing on weight gain, family psychotherapy, oral intake monitoring with dietary consultation, and pharmacotherapy. These approaches have yielded impressive results in motivated patients.
6. Close monitoring of body weight and general medical condition in consultation with a primary care physician or pediatrician is warranted. Also refer patient and family to an eating disorders self-help organization.

Bulimia

I. DSM IV Diagnostic Criteria

A. The patient engages in recurrent episodes of binging, characterized by both eating excessive amount of food within a 2 hour span, and by having a sense of lack of self control over eating during the episode.

B. The patient engages in recurrent compensatory behavior to prevent weight-gain (such as self-induced vomiting, laxative, diuretic, exercise abuse).

C. The above occur on the average twice a week for three months.

D. The patient's self evaluation is unduly influenced by body shape and weight.

E. The disturbance does not occur exclusively during episodes of anorexia nervosa.

II. Classification of Bulimia

A. Purging Bulimia: The patient regularly makes use of self-induced vomiting, laxatives.

B. Nonpurging Bulimia: The patient regularly engages in fasting or exercise, but not vomiting or laxatives.

III. Clinical Features of Bulimia

A. Unlike anorexia patients bulimic patients tend to be at or above their expected weight age.

B. Bulimia sufferers tend to be ashamed of their behavior and often hide it from their families and physicians for prolonged periods of time.

C. There is an increased frequency of affective disorders, substance abuse (30%), and borderline personality disorder (30%) in bulimia patients.

D. Physical and laboratory findings are similar to those found in anorexia nervosa, although to a lesser degree. Bulimia rarely leads to death.

IV. Epidemiology of Bulimia

A. Bulimia occurs primarily in industrialized countries, and the incidence is 1%-3% of adolescent and young adult females and 0.1%-0.3% of males.

B. There is a higher incidence of affective disorders in families of patients with bulimia, and obesity is more common.

V. Differential Diagnosis of Bulimia

A. Binging Purging Type Anorexia Nervosa: Body weight is less than 85% of expected and binging and purging behavior occurs.

B. Atypical Depression: Overeating occurs in the absence of compensatory purging behaviors, and concern over body shape and weight is not predominant.

C. Medical Conditions with Disturbed Eating Behaviors: Aspects of loss of control, concern with body shape and weight are absent.

VI. Treatment of Bulimia Nervosa

A. Cognitive behavioral therapy has shown the most promise in treating this disorder. Psychodynamic group and family therapies are helpful.

B. Pharmacotherapy of Bulimia Nervosa

1. Antidepressant medications are useful in the treatment of bulimia nervosa, whether or not accompanied by major depression; symptoms of binging and purging are reduced.
2. Imipramine (Tofranil) or Desipramine (Norpramin) at a low dosage (50 mg per day) is slowly increased by 50-mg increments every 3-4 days, to a daily dose of 150 mg. The serum drug level should be measured after 1 week.
3. Fluoxetine may also be effective at a dosage of up to 60 mg per day.
4. Bupropion is contraindicated due to increased risk of seizures in this group of patients.

Psychiatric Therapy

Antidepressants

I. Indications

Unipolar and bipolar depression, organic mood disorders, anxiety disorders (panic disorder, GAD, OCD, PTSD), schizoaffective disorder, eating disorder, misc. impulse disorders.

II. Classification based on predominant pharmacological mechanisms of action:

A. Selective Serotonin (5HT) Reuptake Inhibitors: Fluoxetine, Sertraline, Paroxetine, Fluvoxamine

B. Serotonin/Norepinephrine Reuptake Inhibitors: Heterocyclics (TCAs), Venlafaxine

C. Serotonin/Dopamine Reuptake Inhibitors: Bupropion

D. Mixed serotonin Reuptake Inhibition/serotonin Receptor Antagonism: Trazodone, Nefazodone

E. Monamine Oxidase Inhibitors: Phenelzine, Tranylcypromine, Moclobemide

III. Clinical Use of Antidepressants

A. There are over 20 available antidepressants available; all share equivalent efficacy. Selection takes into account past history of response, side-effect profile, coexistent medical problems.

B. Treatment begins with a initial test dose. Once therapeutic levels are reached response typically requires 3 to 6 weeks. TCAs and Bupropion have the smallest therapeutic index and present the greatest risk in overdose.

C. Psychotic symptoms can accompany severe cases of depression, and antipsychotic medication is indicated. (Also see “Psychotic Disorders,” page 17.)

IV. Side Effects

A. Cardiac Toxicity

1. TCAs have prominent ability to slow conduction (similar to Type 1A antiarrhythmic) resulting in intraventricular conduction delay, prolonged QT interval, and AV block. Problems occur in patients with preexisting conduction problems and when TCA blood levels are elevated due to overdose or inhibition of metabolism. Therefore

they should not be used in patients with conduction defects, arrhythmias, or past MI.

2. The new SSRIs, venlafaxine, Bupropion, and trazodone/nefazodone have no effects on conduction. Trazodone may aggravate preexisting arrhythmias.

B. Neurotoxicity:

1. TCAs produce a plasma concentration dependent neurotoxicity that evolves in stages of agitation, delirium, seizures, coma, and death.
2. Bupropion induces seizures in 1% of patients treated with more than 450 mg/day. In lower doses it may reduce seizure threshold in patients with preexisting seizure vulnerability.

C. Anticholinergic Adverse Drug Reactions: Dry mouth, blurred vision, constipation, and urinary retention.

D. Antihistaminergic Adverse Drug Reactions: Sedation, weight gain.

E. Anti-alpha1-adrenergic Adverse Drug Reactions: Orthostatic hypotension, sedation, sexual dysfunction.

F. Serotonergic Activation: GI symptoms (nausea, diarrhea), insomnia or somnolence, agitation, tremor, anorexia, and sexual dysfunction can occur with SSRI especially during the initiation of treatment.

G. MAO inhibitors: Most common adverse drug reaction is hypotension. Patients are at risk for hypertensive crisis if foods with high tyramine content or sympathomimetic drugs are consumed. Therefore a strict diet low in tyramine must be followed. Otherwise MAOI are well tolerated. An additional absolute contraindication is coadministration with meperidine (Demerol).

H. Commonly Used Antidepressants

Drug	Recommended dosage	Comments
Secondary Amine Tricyclics		
Class as a whole: Side effects include anticholinergic effects (dry mouth, blurred vision, constipation) and alpha-blocking effects (sedation, orthostatic hypotension). Drug hangover is common but subsides within 7-10 d. May lower seizure threshold. Can induce cardiac rhythm disturbances by slowing conduction.		
Amoxapine (Asendin, generics)	Initial dosage 50 mg bid-tid, increase to 200-300 mg/d if necessary. Max 600 mg/d. In el-	Risk of seizures in overdose. May be associated with tardive dyskinesia, neuroleptic

Desipramine HCl (Norpramin, generics)	100-200 mg/d, gradually increasing to 300 mg/d if necessary. Geriatric: 25-100 mg/d, max 150 mg/d. [10, 25, 50, 75, 100, 150 mg]	May have stimulant effect; best taken in morning to avoid insomnia.
Nortriptyline HCL (Pamelor)	25 mg tid or qid, max 150 mg/d; monitor levels if dosage >100 mg/d. Elderly: 30-50 mg/d. [10, 25, 50, 75 mg]	Sedating.
Tertiary Amine Tricyclics		
Class as a whole: Anticholinergic effects and orthostatic hypotension may be more severe than with secondary amine tricyclics. All are contraindicated in glaucoma and should be used with caution in urinary retention and cardiovascular disorders.		
Amitriptyline HCL (Elavil, generics)	75 mg/d bid-tid, up to 150-200 mg/d. May be given in single bedtime dose. Elderly: 10 mg tid. [10, 25, 50, 75, 100, 150 mg]	High sedation. High anticholinergic activity.
Clomipramine HCL (Anafranil)	25-100 mg/d; max 250 mg/d; may be given once qhs [25, 50, 75 mg].	Relatively high sedation, anticholinergic activity, and seizure risk. Also used for obsessive-compulsive disorder.
Protriptyline (Vivactil)	5-10 mg PO tid-qid; 15-60 mg/d [5, 10 mg];	
Doxepin HCL (Sinequan, generics)	25-75 mg/d, increasing up to 150-300 mg/d as needed. [10, 25, 50, 75, 100, 150 mg]	Sedating.

Imipramine HCL (Tofranil, generics)	75 mg/d in a single dose qhs, increasing to 150 mg/d; max 300 mg/d. Elderly: 30-40 mg/d initially. [10, 25, 50 mg]	High sedation.
Tetracyclic		
Maprotiline HCL (Ludiomil, generics)	75 mg/d initially,. Usual effective dose 150 mg/d, max 225 mg/d. Elderly: 25 mg/d initially [25, 50, 75 mg]	Sedating. Substantial risk of seizures; maculopapular rash in 3-10%.
Selective Serotonin Reuptake Inhibitors (SSRIs)		
Class as a whole: Common side effects include sexual dysfunction, headache, nausea, anxiety, mild sedation, insomnia, anorexia.		
Fluoxetine HCL (Prozac)	10-20 mg/d initially, taken in AM; max of 80 mg/d in 2 divided doses (morning and noon). Lower dosage for elderly or renal/hepatic impairment, or multiple medications [20 mg]	Longest half-life of any antidepressant (2-9 d). Discontinue 2 mo before pregnancy.
Paroxetine HCL (Paxil)	20 mg/d initially, given in AM; max of 50 mg/d. Elderly starting dosage, 10 mg/d [20, 30 mg]	Dizziness, diarrhea, mild dry mouth.
Sertraline HCL (Zoloft)	50 mg/d, increasing as needed to max of 200 mg/d [50, 100 mg]	Mild dry mouth.
Nefazodone (Serzone)	Start at 100 mg PO bid and increase to 150-300 mg PO bid. Start at 50 mg PO bid if >65 years old [100, 150, 200, 250 mg].	Headache, somnolence, dry mouth, blurred vision. Postural hypotension, Possibly less sexual side-effects.

Miscellaneous		
Venlafaxine (Effexor)	75 mg/d in 2-3 divided doses with food; increase to 225 mg/d as needed. Reduce dosage in hepatic or renal impairment. [25, 37.5, 50, 75, 100 mg].	with mild hypertension. Common side effects: nausea, somnolence, insomnia, dizziness, sexual dysfunction, headache, dry mouth, anxiety.
Bupropion (Wellbutrin)	200 mg/d in 2 divided doses; increase to 200-450 mg/d in 3 divided doses as needed. [75, 100 mg]	Agitation, dry mouth, insomnia, headache, nausea, vomiting, constipation, tremor, agitation. Good choice if sexual side effects from other agents.
Trazodone HCl (Desyrel, generics)	150 mg/d, max of 400 mg/d in divided doses. [50, 100, 150, 300 mg]	Rarely associated with priapism. Orthostatic hypotension, sedating.

Comparison of Commonly Used Antidepressants

Name	**Trade Name**	**Class**	**Dose (mg)**	**Drug Level ng/mL**	**M_1 Anticholinergic Side Effects**	**α_1 Alpha1-blockade Side Effects**	**H_1/H_2 Antihistamine Side Effects**	**Comments**
Paroxetine	Paxil	SSRI	20-30		0	0	0	
Sertraline	Zoloft	SSRI	50-200		0	0	0	Average dose 50 mg/day
Fluoxetine	Prozac	SSRI	20-60		0/+	0	0/+	Average dose 20 mg/day
Fluvoxamine	Luvox	SSRI	50-300		0	0	0	
Venlafaxine	Effexor	Serotonin/norepinephrine reuptake inhibitor	100-375		0	0	0	given bid or tid

Amitriptyline	Elavil	TCA	50-300	75-175	4+	4+	3+	
Desipramin e	Norpramin	TCA	50-300	100-160	1+	2+	1+	
Nortriptyline	Pamelor	TCA	50-150	50-150	1+	3+	1+	
Trimipra- mine	Surmontil	TCA	50-300		2+	2+	3+	
Imipramine	Tofranil	TCA	50-150	150-300	2+	3+	2+	
Amoxapine	Asendin	TCA	50-300		1+	3+	2+	may cause extrapyramidal symptoms
Doxepin	Sinequan	TCA	50-300	100-250	2+	4+	4+	most sedating TCA
Clomipra- mine	Anafranil	TCA	50-300		3+	3+	3+	May be used for obsessive com- pulsive disorder

Maprotiline	Ludiomil	Tetracyclic antidepres-sant	50-300	150-300	1+	2+	2+	tetracyclic; similar side effects as TCAs
Protriptyline	Vivactil	TCA	15-60	75-250	3+	3+	0/+	minimal sedation
Bupropion	Wellbutrin	see above	100-150 tid		0	0/+	0/+	lowers seizure threshold. Useful for TCA nonresponders
Trazodone	Desyrel	see above	150-400		0	3+	3+	orthostasis, priapism
Nefazodone	Serzone	see above	300-500		0	0	0	
Phenelzine	Nardil	MAOI	30-90		1+		1+	
Tranylcy-promine	Parnate	MAOI	20-90		1+		1+	
Isocarbox-azid	Marplan	MAOI	10-30		1+		1+	

TCA: tricyclic antidepressant
α_1: alpha one adrenergic receptor blockade related side effects
M_1: Anticholinergic Related Side Effects
H_1/H_2: Antihistamine Related Side Effects

Mood Stabilizers

I. Indications

- **A.** Mood stabilizers are the drugs of choice for bipolar disorder, schizoaffective disorder and cyclothymia
- **B.** They are effective in treatment of acute mania and prophylaxis of mania and depression in bipolar disorders.
- **C.** Less efficacious for bipolar depression
- **D.** Useful adjunctive agents in schizophrenia
- **E.** Can help with impulse control disorders secondary to severe personality disorders, mental retardation and dementia.

II. Lithium

- **A.** Lithium is the mainstay of treatment of mania and bipolar disorder.
- **B.** Lithium, in addition to being an anti-manic agent, possesses modest but significant antidepressant properties, and is, therefore, a useful anti-cycling agent. However lithium is less effective in rapid cycling mania.
- **C.** Lithium carbonate comes in regular and slow-release forms; either form may be given twice daily.
- **D.** Healthy young adults can usually tolerate 600 mg of lithium carbonate twice daily at the start of therapy. The dose is increased over seven to ten days, until the plasma level is 0.80 to 1.40 mEq per L (0.80 to 1.40 mMol per L). Serum lithium levels are usually measured 12 hours after the preceding dose of lithium. Serum levels as low as 0.40 mEq per L may be effective during long-term maintenance.
- **E.** **Common side effects of lithium** include polyuria, thirst, edema, weight gain, fine tremor, mild nausea (especially if the drug is not taken with food) and mild diarrhea.
- **F.** **Lithium toxicity** is manifested by coarse tremor, stupor, ataxia, seizures, persistent headache, vomiting, slurred speech, confusion, incontinence and arrhythmias. Toxicity may occur when a patient becomes ill and ceases to eat and drink normally but continues to take lithium as prescribed. A patient who cannot eat and drink normally should temporarily stop taking lithium.
- **G.** Nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen or aspirin, elevate the plasma lithium level. Lithium levels should be carefully monitored during the use of NSAIDs.
- **H.** Lithium levels are thought to rise 20 to 25 percent when a patient begins treatment with diuretics such as chlorothiazide (Diuril).
- **I.** Prior to beginning treatment with lithium, measure blood urea nitrogen, creatinine, electrolyte, fasting blood sugar, TSH, and free T4 levels.
- **J.** If a patient becomes significantly depressed during lithium therapy, a tricyclic antidepressant or MAO inhibitor can be added.

K. May use divided doses or a single daily dose if tolerated. Divided dose may attenuate side effects such as tremor. The usual adult dosage ranges from 600 to 2400 mg per day.

L. Requires about two weeks for effect and should be continued for four to eight weeks before evaluating efficacy.

M. Serum levels must be drawn weekly the first one to two months, then every two to four weeks. Serum levels should be kept between 0.8-1.2 mMol/L in most patients.

N. Monitor serum creatinine and TSH regularly (every 6 months).

O. Side Effects

1. **Gastrointestinal distress** (mild diarrhea, nausea) may be alleviated by giving the medication with meals or switching to a sustained release preparation such as Lithobid.
2. **Tremor** is most common in the hands and is treated by lowering the dosage or with low dose propranolol or atenolol.
3. Lithium induced **diabetes insipidus** presents with polyuria and polydipsia and may be treated with the diuretic, amiloride, in doses of 5-20 mg per day with frequent monitoring of lithium and potassium levels.
4. **Hypothyroidism** is treated with levothyroxine.
5. **Acne** can often be controlled with benzoyl peroxide or antibiotics.
6. **Elevated WBC** count, usually between 11-15 thousand, is frequently observed and requires no treatment. Care should be given that elevation is not due to infection.
7. **Cardiac arrhythmias or psoriasis** usually requires discontinuation.
8. **Lithium toxicity** may occur at levels greater than 1.5 mEq per liter and presents with emesis, diarrhea, confusion, ataxia, and cardiac arrhythmias. Seizures, coma and death may occur at levels above 2.5 mEq per liter treatment and may require hemodialysis.

III. Carbamazepine

Carbamazepine is often used in patients who do not respond to lithium and is administered 3-4 times daily to minimize side effects.

A. Treatment Guidelines

1. **Pretreatment Evaluations:** CBC with differential and platelets, liver function tests, EKG, electrolytes and a physical exam.
2. Carbamazepine usually requires two weeks to take effect, but a therapeutic trial should last four to six weeks before evaluating efficacy.
3. Obtain serum levels along with a full CBC, liver function tests and electrolytes weekly for a month.
4. Monitor WBC more frequently if the white count begins to drop.
5. After the first month, levels may be drawn less frequently.

6. Carbamazepine induces its own metabolism and decreased levels occur between three and eight weeks. At this time, the carbamazepine dose may need to be increased.

B. Side Effects

1. The most serious side effects of carbamazepine are agranulocytosis or aplastic anemia at a frequency of 1 in 20,000.
2. Discontinue if the carbamazepine total WBC count drops below 3,000, the absolute neutrophil count drops below 1,500 or the platelet count drops below 100,000.
3. Hepatitis may rarely occur, and may require discontinuation of carbamazepine. Mild elevations in liver function is seen in most patients and does not require discontinuation of the drug.
4. Stevens-Johnson syndrome, a severe dermatologic condition, is a rare side effect of carbamazepine, and requires immediate discontinuation of therapy and medical consultation.
5. Carbamazepine may also cause ataxia, confusion and tremors (usually with high doses or toxicity).
6. Sedation and gastrointestinal distress is common.
7. Carbamazepine is more benign in overdose than lithium. Carbamazepine also produces numerous drug-drug interactions, thus use caution when combining carbamazepine with other medications.

IV. Valproic Acid

A. Treatment Guidelines

1. **Pretreatment Evaluation:** Physical exam, CBC, platelets, liver function tests, PT/PTT.
2. Valproate usually requires two weeks to take full effect, but a trial of four to six weeks should be completed before evaluating efficacy.
3. Serum levels along with a CBC, platelet count and PT/PTT should be obtained weekly in the first month of treatment
4. Depakote is the best tolerated form of valproate and is generally given in a dose range between 500-3000 mg per day in bid to tid dosing.

B. Side Effects

1. Gastrointestinal distress (nausea and vomiting) is the most common side effect and often improves by administering with food or switching to an enteric coated preparation such as Depakote.
2. Sedation is common, and usually abates in the first few weeks.
3. Hepatitis and pancreatitis are rare complications, and usually occur during the first several months.
4. Mild elevations of liver function occur in many patients and require no special treatment except frequent monitoring of liver enzymes.

5. Thrombocytopenia is rare and may require discontinuation of the drug if levels drop below 100,000.

C. Elevation of serum ammonia is a rare complication and is often benign, but may be an indicator of severe hepatotoxicity, especially if accompanied by mental confusion.

D. Valproate is more benign in overdose than lithium or carbamazepine.

V. Verapamil

A. Clinical Guidelines

1. A small number of studies have shown efficacy of verapamil in bipolar mania and maintenance of bipolar disorder.
2. Lithium, carbamazepine and valproate all have significantly more proven efficacy and should be utilized prior to a trial of verapamil.

B. Side Effects

1. Common side effects include hypotension, bradycardia, constipation, gastrointestinal distress, sedation and dizziness.
2. Should not be used in patients with cardiac conduction delays without cardiology consultation as it may produce atrioventricular heart block.
3. Neurotoxicity has been reported when combining verapamil with lithium or carbamazepine.

Commonly Used Antimanic Agents

Name	Trade Name	Available Strength	Dose Range	Therapeutic Drug Levels
Lithium carbonate	Lithonate, Eskalith, generics	300 mg	600-2400 mg	0.8-1.2 mEq per liter
Lithium carbonate, slow release	Lithobid, Eskalith CR	300 or 450 mg	600-2400 mg	0.8-1.2 mEq per liter
Lithium citrate	Cibalith-S	8 mEq per 5 mL	10- 40 mL	0.8-1.2 mEq per liter
Carbamazepine	Tegretol and generics	100 or 200 mg	400-1800 mg in tid or qid dosing	8-12 micro-gm per mL
		Liquid: 100 mg per 5 mL	400-1800 mg in tid or qid dosing	8-12 micro-gm per mL
Valproic acid	Depakene	250 mg	500-3000 mg in bid or rid dosing	50-100 micro-gm per mL
Divalproex sodium	Depakote	125, 250 or 500 mg	500-3000 mg in bid or rid dosing	50-100 micro-gm per mL
		125 mg sprinkle capsules	500-300 mg in bid or tid dosing	50-100 micro-gm per mL
Verapamil	Calan and generics	40 or 80 mg	40-120 mg tid	not applicable
Verapamil slow release	Calan SR	120, 180 or 240 mg	120-360 mg qd	not applicable

Antianxiety Agents

I. Benzodiazepines

A. Indications

Benzodiazepines are used for the treatment of anxiety disorders, insomnia, seizure disorders and detoxification from alcohol. They are also effective adjunctive agents for patients with agitated psychotic or depressive states.

1. All benzodiazepines produce tolerance and are addictive. Short courses of treatment should be used whenever possible.
2. The primary indications for long term treatment are chronic anxiety disorders such as generalized anxiety disorder and panic disorder.
3. When benzodiazepines are discontinued, the drug should be tapered slowly if use has been for more than a few weeks.
4. Long acting agents such as clonazepam and diazepam are preferable for long term treatment since they produce less withdrawal and require less frequent dosing.
5. The 3-hydroxy benzodiazepines (lorazepam, alprazolam, and oxazepam) have no active metabolites and are the agents of choice in patients with impaired liver function.
6. Treatment of acute agitation is best accomplished with lorazepam (Ativan), 2 mg IM.

B. Side Effects

1. **Sedation**
   - **a.** Most common and universal side effect.
   - **b.** Caution patients about driving after taking benzodiazepines.
   - **c.** Caution patients about combining alcohol with benzodiazepines.
   - **d.** Tolerance to sedative effects often occurs during the first few weeks of treatment.
2. **Cognitive Dysfunction**

   Anterograde amnesia is common, especially with high potency agents such as alprazolam or short acting agents such as triazolam.
3. **Miscellaneous Side Effects**
   - **a.** Benzodiazepines may produce ataxia, slurred speech and dizziness especially in high doses.
   - **b.** Respiratory depression can occur at high doses, especially with respiratory illness such as chronic obstructive pulmonary disease.
   - **c.** Benzodiazepines are contraindicated in pregnancy or with breast feeding.

Classification of Antianxiety Agents

Name	Trade Name	Dose (mg)	Dose Equiva-lence	Half-Life Of Metabolites (hours)
Alprazolam	Xanax	0.75-6	0.5	6-20
Chlordiazepoxide	Librium	30-200	10	30-100
Clonazepam	Klonopin	0.5-8	0.25	18-50
Clorazepate	Tranxene	7.5 - 60	7.5	30-100
Diazepam	Valium	4-60	5	30-100
Halazepam	Paxipam	40-160	20	30-100
Lorazepam	Ativan	1-8	1	10-20
Midazolam	Versed	7.5-45 IV	1.25-1.5	2-3
Oxazepam	Serax	30-120	15	8-12
Prazepam	Centrax	10-60	10	30-100

II. Buspirone

A. Classification

1. Buspirone is a nonbenzodiazepine anxiolytic agent of the azaspirone class.

B. Indications

1. Buspirone (BuSpar) is indicated for anxiety disorders such as generalized anxiety disorder; however it is not effective for panic disorder.
2. May also be effective adjunctive agent in treatment resistant depression

C. Dosage

1. The starting dose is 5 mg two to three times a day. Gradually titrate to a maximum dosage of 60 mg per day over several weeks.
2. Many patients respond to a total dose of 30 to 40 mg per day in three divided doses.

3. At least two weeks are required to show clinical improvement, and trials of four to eight weeks are common before seeing improvement.

D. Side Effects

1. Buspirone is generally well tolerated with most common side effects of nausea, headaches, dizziness, and insomnia.
2. Buspirone is not addicting and has no withdrawal syndrome or tolerance, and if does not produce sedation or potentiate the effects of alcohol.
3. Buspirone should not be administered with monoamine oxidase inhibitors.

Electroconvulsive Therapy

Electroconvulsive therapy (ECT) a highly effective treatment for depression with a response rate of 90% compared to a 70% response rate for antidepressants.

I. Indications

A. ECT is effective for major depressive disorder, Bipolar affective disorder (to treat mania and depression) catatonic stupor, and acute psychosis.

B. May be used as a first line treatment for depression, especially if associated with acute suicidal behavior as well as with psychotic symptoms.

C. The elderly tend to have a better response to ECT than to antidepressant medication. Pregnant women who are severely depressed and who want to avoid the long-term exposure of the fetus to antidepressant medication can safely undergo ETC.

D. Depression in Parkinson's disease responds to ECT with the added benefit of improvement of the movement disorder which in some cases may be long lasting.

II. ECT Evaluation

A. Before ECT, complete a history and physical and routine laboratory tests (CBC, electrolytes, liver enzymes, urinalysis, thyroid function), EKG, chest X-ray, spinal series X-rays, and brain CAT scan.

B. Informed consent needs to be signed in most states 24 hours prior to the first treatment. A second psychiatrist, not involved in the treatment of the patient, must also examine the patient and document the patient's ability to give informed consent and document the appropriateness of ETC.

C. Procedure

1. The patient should be NPO for at least eight hours. The patient's blood pressure, cardiac activity, oxygen content, and electrical brain activity should be monitored.
2. After oxygenation a short acting barbiturate such as methohexital is administered for anesthesia. A tourniquet is applied to one extremity in order to monitor the motor component of the seizure.
3. Muscle paralysis is then induced by succinylcholine. A rubber mouth block is then placed, and, once paralysis is complete, the electrical stimulus is applied to induce the seizure.
4. The duration of the seizure is monitored both by the EEG and the isolated extremity.

D. Dose

1. A minimum of six treatments is usually required, the first three usually with bilateral electrode placement, and then with up to twenty additional treatments improvement is achieved.
2. The seizure must last a minimum of 25 seconds and up to 180 seconds. For seizures less than 25 seconds, wait approximately one minute and then stimulate again. Discontinue therapy after three failed attempts.
3. If seizures exceed three minutes, intravenous diazepam may be used to terminate the seizure. Usually treatments are given two to three times per week.

III. Contraindications

A. Intracranial mass, recent stroke and recent MI. The procedure is very safe, and the complication rate is comparable to that of anesthesia alone.

B. Patients with cardiac disease may need clearance by a cardiologist, similarly patients with spinal disease may need clearance by an orthopedist.

IV. Side Effects

A. Memory Loss: Retrograde and anterograde amnesia of the events surrounding the treatment is common. Some loss of recent memory resolves within a few days to a few weeks. A small number of patients complain of persistent memory difficulties after several months.

B. Temporary headache is common.

V. Maintenance ECT: Maintenance ECT may be required for up to six months after the end of the initial series. Initially give weekly treatments for one month, then gradually taper to one treatment every four to five weeks.

References

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th edition Washington, D.C., American Psychiatric Association, 1994.

Index